



UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE
DEPARTMENT OF PUBLIC HEALTH

***“PERCEPTIONS AND BELIEFS OF UNIVERSITY AND COLLEGE STUDENTS
TOWARDS MALE CIRCUMCISION IN LUSAKA.”***

by

Chama Chanda

**THIS THESIS SUBMITTED TO THE DEPARTMENT OF PUBLIC HEALTH, SCHOOL
OF MEDICINE, UNIVERSITY OF ZAMBIA, RIDGEWAY CAMPUS IN PARTIAL
FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF
PUBLIC HEALTH (MPH)**

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Dr S.H. Nzala (Supervisor)

Signed:.....Date:.....

Head of Department

Signed:.....Date:.....

Department of Public Health, School of Medicine, University of Zambia.

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This dissertation of Chama Chanda is approved in partial fulfillment of requirement for the award of a Masters in Public health (MPH) by the University of Zambia.

Examiner (1)

Name.....

Signature.....Date.....

Examiner (2)

Name.....

Signature.....Date.....

Examiner (3)

Name.....

Signature.....Date.....

Head of Department.....

Signature..... Date.....

DEDICATION

This Research Paper is dedicated to our successive filial future generation. The research paper is equally lovingly dedicated to our respective parents who have been our constant source of inspiration. They have given us the drive and discipline to tackle any task with enthusiasm and determination. Without their love and support all achievements would not have been made possible.

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LIST OF ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
HAART	Highly Active Antiretroviral Therapy
HIV	Human Immunodeficiency Virus
HTC	HIV Testing and Counseling
MC	Male Circumcision
MoT	Modes of Transmission
NAC	National AIDS Council
OR	Odds Ratio
PITC	Provider Initiated Testing and Counseling
PLWHA	People Living with HIV and AIDS
PMTCT	Prevention of Mother to Child Transmission
SADC	Southern African Development Community
STI	Sexually Transmitted Infection
TB	Tuberculosis
UN	United Nations
UNAIDS	United Nations Joint Program on AIDS
UNZA	University of Zambia
VCT	Voluntary Counseling and Testing
WHO	World Health Organization
ZDHS	Zambia Demographic and Health Survey

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ABSTRACT

Background: Data from a range of observational epidemiological studies, conducted since the mid-1980s, showed that circumcised men have a lower prevalence of HIV than those who are uncircumcised. Furthermore recent randomized controlled trials have presented a myriad of data pointing to substantial health benefits from scaling-up male circumcision in Zambia, due to its high HIV prevalence and low rates of male circumcision.

Study Objective: The study was conducted to gain insights into the perceptions and beliefs about Male circumcision among University and college students in Lusaka, Zambia

Materials and methods: Data collection included completion of a demographic form (See Annex) by each participant followed by the focus group discussions. Four focus group discussions with between 6 and 8 participants were conducted (See Table.1) The focus group discussions were audio taped. One tape recorder was used at each discussion to provide backup recordings to the written scripts. Additionally, data was collected through in depth interviews with the aid of the semi-structured questionnaire. The participants in the focus group discussions recommended 10 participants for the in depth interviews, 6 and 4 participants from Evelyn Hone College and University of Zambia respectively.

Results: Manifest content of the study findings suggests that there is a remarkable and consistent trend in the way that Medical Male Circumcision is perceived amongst college and university student. They present virtually universal knowledge about the procedure, its practice, where it should be conducted, the facts about circumcision and what the prevailing untruths are about the procedure. The female respondents approve of male circumcision for males of all ages. They were quite conservative in their speech where to express themselves adequately they would have to be coerced for example, into explicitly referring to the male sex organ as a penis.

They are convinced that men are mainly going for circumcision because they have learnt that when you go for circumcision, the risk of contracting HIV and AIDS is reduced. However for them, the manifest issue was about enhanced hygiene for which they preferred a circumcised men to one who was not.

Conclusions: The results from this particular study suggest that most young male adults are willing to go for circumcision and for the correct reasons as stipulated in the clearing house on “**Basic facts about Circumcision**”. In their opinion the main aspect which may limit scale up of circumcision would be lack of services as near to the prospective clients as possible and lack of sufficient information about male circumcision in various sections of society. The female students have grasped the opportunity and have become partners in their counterpart’s health seeking behavior. They are aware that there are indirect benefits for them when their male partners have undergone circumcision

Limitations:

1. Sample size was relatively small because like in this study, data collection methods in qualitative research are often labour intensive.
2. The study was potentially subject to researcher bias, as those who were quite fluent on English were preferred. These subjects most likely came from similar backgrounds
3. The study was conducted in two tertiary institutions which entails lack of reproducibility and generalizability of the findings (may not be applicable to other subjects or settings)

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1.0 INTRODUCTION

1.1 Background

Sub-Saharan Africa continues to bear the brunt of the global epidemic with close two thirds (63%) of all adults and children with HIV globally live in sub-Saharan Africa. This makes the region its epicentre in Africa. One third (32%) of all people with HIV globally live in southern Africa and 34% of all deaths due to AIDS in 2006 occurred there. Declines in national HIV prevalence are being observed in some sub-Saharan African countries, but such trends are currently neither strong nor widespread enough to diminish the epidemic's overall impact in this region. Almost three quarters (72%) of all adult and child deaths due to AIDS in 2006 occurred in sub-Saharan Africa: 2.1 million [1.8 million–2.4 million] of the global total of 2.9 million [2.5 million–3.5 million]. Overall sub-Saharan Africa is home to an estimated 24.7 million [21.8 million–27.7 million] adults and children infected with HIV—1.1 million more than in 2004 (UNAIDS, 2006).

Zambia in particular is experiencing a generalized HIV/AIDS epidemic, with a national HIV prevalence rate of 14.3 per cent among adults aged 15 to 49 (CSO, MOH & TDRC, 2007). The primary modes of HIV transmission are through heterosexual sex and mother-to-child transmission. HIV prevalence rates vary considerably within the country. Infection rates are highest in cities and towns along major transportation routes and lower in rural areas with low population density. HIV prevalence among pregnant women can range from less than 10 percent to 30 percent in some areas. In general, however, young women ages 25 to 34 are at much higher risk of being infected by HIV than young men in the same age group. The prevalence rates are 12.7 and 3.8 percent, respectively. Other at-risk populations include military personnel, people in prostitution, truck drivers and people who work in fisheries (CSO, MOH & TDRC, 2007).

The persistent high HIV prevalence in the country is a national concern and challenge. The HIV prevalence at 14.3% coupled with low numbers seeking to know their status sends a strong message for Zambia to rethink and redirect prevention interventions. It has become apparent that to bring the high HIV prevalence down, Zambia must embark on intensive and targeted prevention interventions for both the youths and adults. The (Zambia Demographic and Health Survey, 2007) shows that only that only 34 percent of young women and 37 percent of young men aged 15 - 24 can correctly identify ways of preventing sexual transmission of HIV.

Repositioning HIV information for youth is therefore necessary. Under the new HIV prevention strategy, these priority areas have been refined and reduced to four:

1. Prevention of sexual transmission of HIV
2. Prevention of mother-to-child transmission (PMTCT) of HIV
3. Counseling and testing
4. HIV prevention in health care setting, including post-exposure prophylaxis (PEP)

It is important to note that the new prevention strategy contains, apart from the traditional objectives on HIV and AIDS service delivery, also objectives regarding alcohol and substance abuse, as well as on the integration of prevention with other services (NAC, 2009).

Zambia has just concluded the epidemiological synthesis of all HIV/AIDS recent data and studies conducted in the country. Key drivers identified include casual heterosexual sex, (including sex for favours / benefit) perceived low risk heterosexual sex (low condom use) and heterosexual sex in stable relationship (high discordance levels in married couples and multiple concurrent partnerships) and Low levels of male circumcision (NAC, 2009).

Since male Circumcision has shown to be effective in reducing the risk of HIV infection for men, care must be taken to ensure that men and women understand that the procedure does not provide complete protection against HIV. Male circumcision must be considered as just one element of a comprehensive HIV prevention package that includes the correct and consistent use of condoms, reduction in the number of sexual partners, delaying the onset of sexual relations, avoidance of penetrative sex, and testing and counseling to know ones HIV sero-status.

Acceptability studies, done both in Zambia and abroad, have shown that male circumcision is generally acceptable to communities if it is made safe, affordable and available. The new HIV Prevention Strategy seeks to strengthen and scale-up male circumcision services as part of the National comprehensive prevention package and as part of comprehensive male reproductive health services (NAC, 2009).

1.2 Statement of the problem

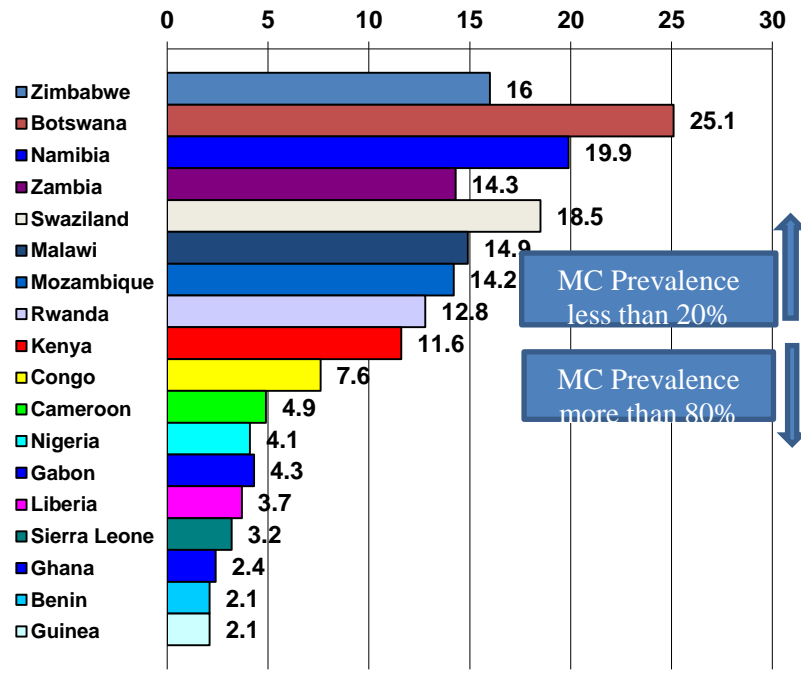
This study was predicated on the following problems:

While circumcision has been proven to be an effective method of HIV transmission prevention and recommended to be used in addition to other known strategies for prevention of heterosexually acquired HIV infection in men, in Zambia few males are circumcised (WHO, 2007).

The geographic regions in sub-Saharan Africa where men are more commonly circumcised overlap with areas of lower HIV prevalence. Low prevalence of male circumcision and high prevalence of genital herpes, which is more common in uncircumcised men, emerged as the principal determinant for the differences in HIV rates found in sub-Saharan Africa.

The bar chart in Figure 1.(below) shows that countries in sub-Saharan Africa with relatively low rates of male circumcision (<20%) have a higher HIV prevalence when compared to countries with high (>80%) rates of male circumcision (WHO, 2007). Countries in West Africa where male circumcision is common have HIV prevalence levels well below those of countries in eastern and southern Africa, despite other risk factors for high rates of heterosexual HIV transmission, such as multiple concurrent sexual partners, inconsistent condom use, and high prevalence of other STIs.

Figure 1: Illustrates a comparison between HIV prevalence by country (Horizontal Axis) and the prevalence of Male circumcision (Inset boxes)



The second problem is that while Medical male Circumcision has now been launched as National program under the Ministry of Health, few studies to elucidate the people’s perceptions and beliefs towards Medical male circumcision in Zambia. Furthermore, there has not been any research of this nature conducted on this study’s population of interest, thus there is lack of empirical knowledge about what would motivate and what hinder the target group to seek for the service.

1.3 Research questions

Based on the statement of the problem, this study sought to answer the following research questions:

The principle question this study seeks to answer is: What are the college student's perceptions about Male Circumcision and reasons why men would undergo circumcision as well as the reasons as to why they may not?

The study specifically endeavored to answer the questions:

- What is the target group's general understanding of MC, and are there any perceptions about MC which may or may not be true regarding hygiene, protection, eligibility for MC, types of diseases prevented, sensitivity of penis, satisfaction, healing time, sexual performance, effect on size of the penis etc?
- What are the perceived positive consequences of undergoing MC relating to protection, hygiene, sexual satisfaction and performance, appearance of the penis?
- What are the perceived harm or danger that may influence MC up take such as pain, complications, excessive bleeding, long healing time, loss of sexual potency, death etc. that may arise during and after an MC operation.
- Is there any emotional, moral, financial support and social information (including testimonies) in existence that men need from sources such as peers, family and partner to support or encourage them to undergo MC?
- What perceived standards and practices exist in the community for an individual to follow based on their peer groups, ethnicity, religious affiliation, and or family relating to MC. These may perceptions that MC is a symbol of status/belonging among people of a particular social group

1.4 Research Aims and Objectives

The study was guided by the following objectives:

1.4.1 General Objective

The study was conducted to gain insights into the perceptions and beliefs about Male circumcision among University and college students in Lusaka, Zambia.

1.4.2 Specific Objectives

Based on the target group's account, the study sought:

- (i) To investigate the factors that influence men's health seeking behavior for Male Circumcision.
- (ii) To explore the perceptions and beliefs of immediate Social networks and sexual partners on the uptake of Male Circumcision.
- (iii) To investigate among the college students and gauge the level awareness about Male Circumcision procedure and Medical Male Circumcision services available.
- (iv) To investigate the potential for risk compensation among students (possible unsafe practices which may arise from circumcision).
- (v) To provide policy makers with insights into the feasibility of implementing male circumcision programs for men.

1.5 Research Strategy

The study was a qualitative Iterative study employing Focus groups discussions and in depth interviews with the use of semi-structured interview guides, which provided an outline of topics and questions to be included during the discussion. These interviews were conducted in a ‘conversational style’, and therefore questions were not always asked in the exact same order, nor necessarily worded in the same way. The idea behind adopting an iterative method was that group processes could help people to explore and clarify their views in ways that would be less easily accessible in formal group interviews. The interviewer outlined a series of open ended questions and encouraged research participants to explore the issues of importance to them, in their own vocabulary, generating their own questions and pursuing their own priorities. These group dynamics worked well in the sense that participants worked in unison with the researcher, taking the research in new and often unexpected directions. The semi-structured interview guide provided a means of ensuring that all topics and issues were covered during the course of the discussion. This study was explorative and descriptive in nature and hence did not predefine concepts or test any hypotheses. It would however potentially develop hypotheses for future research.

1.6 Significance of this study– (What this research adds)

The area of study in the population of interest has not previously been researched on. Information gathered from the study will serve as a forerunner to qualitative studies and to complement other studies done in similar areas.

The outcome of the study is cardinal to the individual, family, community and the Zambian Government. The study will also provide a methodological framework for future studies, enrichment of theoretical knowledge to researchers, lecturers and students and provide typologies of decision-making on matters involving Male circumcision.

In countries like Zambia, which have introduced Male Circumcision as part of a comprehensive HIV and AIDS prevention package, it is recommended that law, regulation and policy be developed to ensure that male circumcision services are accessible, acceptable and provided safely without discrimination. The development of such a framework requires engagement of the parliament; legal, health and regulatory authorities; and the communities where male

circumcision will be implemented. Students from higher learning (Tertiary) institutions are being groomed to be future leaders and policy makers of the country.

In addition (CSO, MOH & TDRC, 2007) have documentary evidence in the Zambia Demographic and Health survey which indicates that being at school longer or attaining a higher level of education in general increases the risk of an individual acquiring HIV infection, therefore the study will be beneficial to the current and future student populace because it will influence and inform their HIV prevention strategies positively.

Lastly this study will be of great resource base because it will:

- Fill in the theoretical gap through the conception of hypotheses.
- Stimulate policy makers and program managers in developing public health messages that will fortify male circumcision uptake and most importantly it's advantages
- To improve on existing theory built from data that will be grounded from this study.
- Generate a methodological framework for studies which will consider much wider research.

CHAPTER TWO – LITERATURE REVIEW

2.0 Randomized, Controlled Intervention Trials of Male Circumcision in Africa

Though the area of study in the population of interest has not previously been researched on, there are a number of related studies which have been done in Sub-Sahara Africa and in Zambia concerning acceptability of Male Circumcision, social behavioral influences on its uptake and its protective effect against infection with HIV.

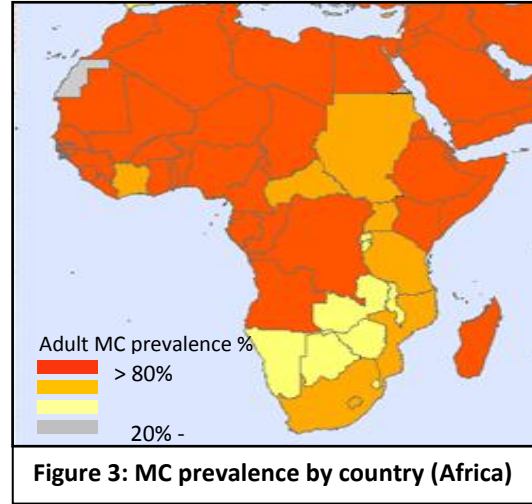
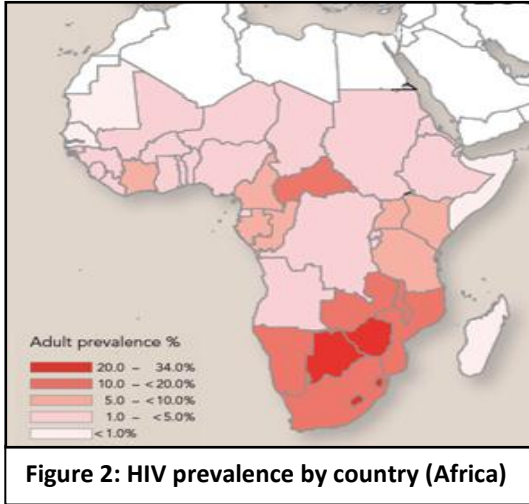
Data from a range of observational epidemiological studies, conducted since the mid 1980s, showed that circumcised men have a lower prevalence of HIV than those who are uncircumcised. Three randomized controlled trials have been conducted which make it possible to separate a direct protective effect of male circumcision from behavioural or social factors that may be associated with both circumcision status and risk of HIV infection. These trials have been conducted in Orange Farm; South Africa, Kisumu; Kenya and Rakai district; Uganda. The results of these trials showed that following circumcision, the incidence of HIV infection was reduced in men by more than half. The South Africa Orange Farm trial, which enrolled 3,274 uncircumcised men aged 18-24years showed a 61% protection against HIV acquisition (Sobngwi-tembekou.et al, 2008). The trial in Kisumu, Kenya, of 2,784 HIV negative men aged 18 to 24 years showed a 53% reduction of HIV acquisition in circumcised men relative to uncircumcised men (Bailey.et al, 2007). The trial of 4,996 HIV negative men aged 15 to 49 years in Rakai, Uganda, showed that HIV acquisition was reduced by 51% in circumcised men (Gray, Kigozi & Serwadda, 2007). All three trials were halted early because the evidence of a protective effect was so strong that it was considered unethical to ask the study participants in the control group to continue waiting to be circumcised. Further analyses of the data from these studies suggest an even greater protective effective against HIV. Some participants assigned to be circumcised did not undergo the procedure, while some in the comparison groups went to other providers to get circumcised before their trial participation had ended. When data on these men were excluded from the analysis, the average reduction in risk of HIV across trials was approximately 65 percent (Avert. et al, 2005).

2.1 Ecological and Biological Evidence for MC as an Effective HIV Prevention Intervention

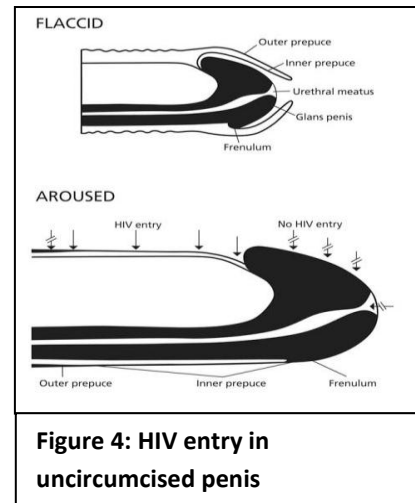
Since the mid-1980s, researchers have suspected a potential link between MC and HIV transmission, due to the ecological evidence that shows lower and more stable HIV prevalence within countries and geographical regions where MC is widespread as compared to contiguous regions where MC was not practiced as widely (UNAIDS, 2007). The association between male circumcision and improved hygiene and reduced genital ulcer disease has long been suspected, but a multicenter analysis of behavioral and epidemiologic data in 2001 showed that co-biological factors including male circumcision and herpes simplex virus type 2 were likely contributors to lower HIV prevalence in certain countries (Center for Social Science, 2010). Worldwide, the prevalence of MC is estimated to be approximately 30-34%, mostly due to nearly universal MC practice among Muslim and Jewish populations. In Africa, male circumcision is more common in countries with majority Muslim populations, but is also practiced traditionally by non-Muslim groups throughout the Sub-Saharan regions. The two maps in Figures 2 and 3 below illustrate the inverse relationship between HIV and MC prevalence among countries in Sub-Saharan Africa that first suggested to researchers that MC may play a role in reducing HIV transmission (Weiss. et al, 2008).

As scientists explored the phenomenon further, they discovered compelling evidence pointing to the biologic plausibility for male circumcision as an HIV prevention intervention due to three main biological mechanisms. The first is that the inner mucosal lining of the uncircumcised penis is soft and delicate, which makes it more vulnerable to micro-abrasions and inflammation during intercourse, thus facilitating bacterial and viral infiltration, as seen in Figure 4.

When the penis is circumcised, any remaining mucosal skin dries out, and the skin develops a layer of tougher exposed skin; this process is called keratinization. As seen on the two slides below in Figure 5 and 6, the keratinized skin of the circumcised penis provides a discernibly thicker layer of protection, which helps to minimize bruising and abrasions during heterosexual intercourse (Patterson & Mayer, 2002).



A second reason that Male Circumcision is believed to protect against HIV infection is that the preputial sac formed by the folded foreskin tissue (seen in Figure 9 above) creates a micro-environment conducive to bacterial and viral survival, increasing the likelihood of post-coital HIV infection, as well as facilitating the proliferation of other bacterial and viral STIs that can further augment physiological vulnerability to the HIV virus. This is thought to be the reason why circumcised men the world over are found to be at a reduced risk of acquiring ulcerative STIs such as syphilis, chancroid and genital herpes, as well as human papilloma virus (Castellsague.et al, 2008). The prevalence of Herpes Simplex Virus type 2 (HSV-2) is very common in Zambia and is thought to be a potential contributor to HIV incidence. According to a cross-sectional population-based study conducted in Ndola District in Copperbelt Province in 2001, the prevalence of HSV-2 was 36% in men and 55% in women; HSV-2 positive individuals in the study were more than four times as likely to also be HIV positive, a statistically significant difference (Weiss. *et al*, 2001).



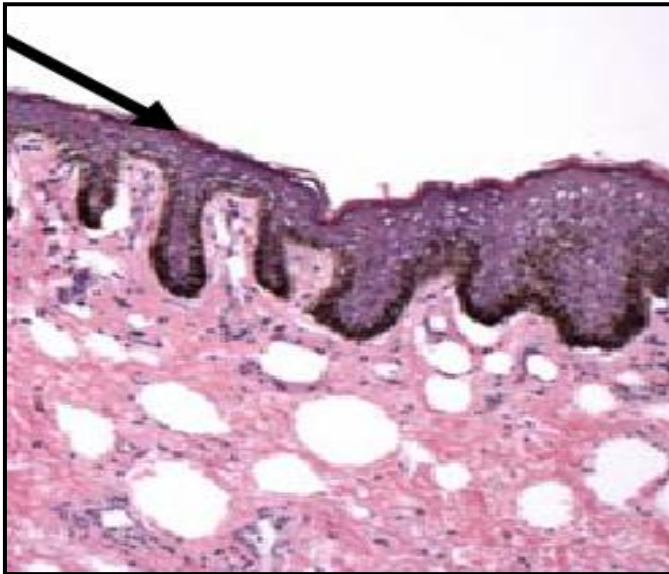


Figure 5: Mucosal inner foreskin of uncircumcised penis

(Patterson & Mayer, 2002)

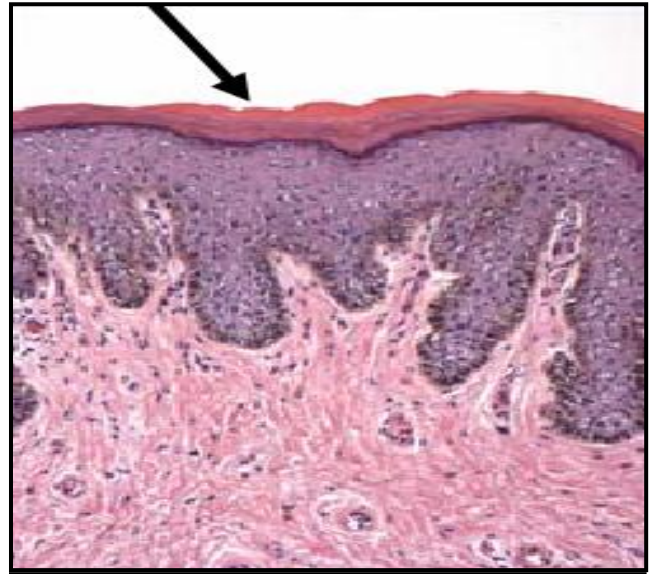


Figure 6: Keratinized outer skin of circumcised penis

(Patterson & Mayer, 2002)

Many of the benefits of reduced viral and bacterial proliferation due to male circumcision also extend to women; statistically significant differences in trichomonas vaginalis (TV), bacterial vaginosis (BV), and HPV prevalence have been found among women whose partners are circumcised, versus those whose partners are not circumcised (Sobngwi-Tambekou. *et al*, 2008). By reducing the prevalence of HPV, female partners of circumcised men are also less likely to acquire cervical cancer (Auvert. *et al*, 2009).

A third reason that male circumcision is believed to prevent HIV transmission relates to the microbiology of the foreskin tissue itself. Careful analysis of the foreskin reveals that it is laden with Langerhans cells, macrophages and other CD4 T-cells, which present the key co-receptors CCR5 and CXCR4 necessary for HIV viral infiltration (Patterson. *et al*, 2009). It is believed that the male foreskin evolved to contain large concentrations of white blood cells in order to protect against viral and bacterial infection in this susceptible area, and this has resulted in higher concentrations of these HIV target cells in the foreskin than any other part of the male body (Patterson & Mayer, 2002).

Because of the lack of keratinization on the exterior of uncircumcised mucosal tissue, these HIV target cells are found much closer to the surface and are more easily exposed due to tears or abrasions of the skin during intercourse (Figure 7)

The type of targets cells common in foreskin tissue also plays a role in facilitating HIV acquisition among uncircumcised men. Langerhans and other dendritic cells are common types of white blood cells found in the foreskin. These cells have long, protruding ‘arms’ that allow the cell to reach between epithelial cells of the mucosal prepuce of an uncircumcised penis, as seen in Figure 7 and 8. The stained tissue slide in Figure 7 shows Langerhans cells reaching to the surface of an uncircumcised penis, where they can easily come in contact with any viruses through tiny breaks in the soft skin.

Epidemiologic modeling suggests that scaling-up male circumcision could avert 5.7 million new HIV infections and 3 million AIDS-related deaths throughout Sub-Saharan Africa over the next 20 years. In 2007 the WHO and the United Nations called for widespread expansion of male-circumcision services for countries with characteristics similar to those found in Zambia today. The WHO declared that countries with high rates of heterosexual HIV infection and low rates of male circumcision now have an additional intervention which can reduce the risk of HIV infection in heterosexual men. Scaling up [adult] male circumcision in such countries will result in immediate benefit to individuals.

There is therefore a lot of data pointing to substantial health benefits from scaling-up male circumcision in Zambia, due to its high HIV prevalence and low rates of male circumcision. However, recent HIV prevention efforts in the country to date have mainly focused on increasing access to male and female condoms, reducing risky sexual behaviors and to a lesser extent, treating STIs among sexually-active persons and reducing HIV viral loads through highly-active anti-retroviral treatment (HAART) among sexually-active persons living with HIV/AIDS (NAC, 2009).

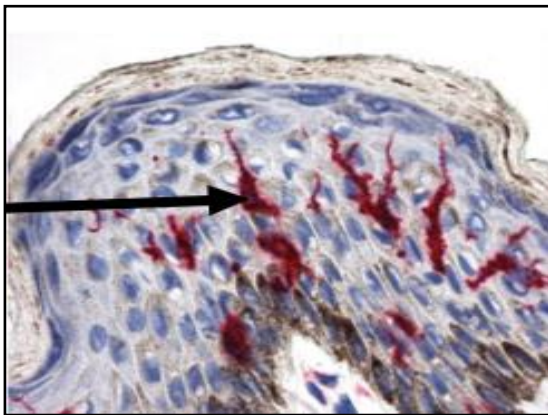


Figure 7: Tissue slide of HIV target cells

(Patterson & Mayer, 2009)

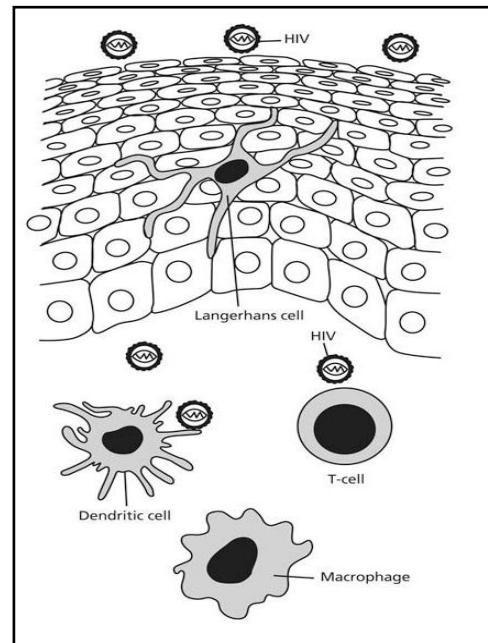


Figure 8: Illustration of target cells common to the foreskin tissue of penis

(Patterson & Mayer, 2009)

2.2 Social and behavioural studies in Male Circumcision

In a study done by Population Services International (PSI) in partnership with society for family Health Zambia (SffH), (FoQus on Concept Development) was used to collect information for designing the concept for social marketing interventions and a process for facilitating decisions about the marketing strategy and mix. In this case the social marketing intervention is MC IEC materials that will be available to potential clients accessing MC services. The key findings in the study were that the perception of male circumcision is changing. In the past male circumcision has been seen as a customary practice that is specific to certain tribal and religious groups, notably, the tribes from the Northwestern and Eastern provinces and the Muslims.

‘We thought somehow it was only related to culture. Some certain tribes are supposed to carry it and other tribes could not carry it out.’ (Male: 20-30: Circumcised).

The attitudes expressed towards circumcision as a result of its placement in a more clinical setting are contradictory. On the one hand, its prevention of HIV and STDs is seen as “*a good thing,*” and has allowed for its long recognized benefit, that of genital hygiene to operate as a supplementary reason of use. However, the actual result of the operation ‘*the penis gets big,*’ and its prevention of sexually related diseases cause circumcision to be associated with the suspicion of sexual immorality. Its practice is viewed as an act related to the pursuit of wayward sexual pleasure and the elimination of sexually contracted diseases.

Today, however, this perception is changing. The main reason for this is the link between male circumcision and the prevention of HIV and STDs. This has taken circumcision out of its cultural and religious setting and placed it in a more clinical context, thereby suddenly opening the practice up to a wider audience.

The protective properties of MC against HIV, certainly in urban areas, have led to a change in the tribal specific notion towards male circumcision. The prior perception towards MC is that it is specific to and acceptable only amongst certain tribes. However, due to its role in the protection against HIV and STDs, MC is now viewed as an acceptable practice that can be adopted by anyone.

“It is not restricted to some tribes or some individuals. It is open to everyone, every man.” (Male: 20-30: Circumcised)

Male circumcision positively affects an individual's self esteem. This is due to its part in prolonging the sexual act thereby allowing men to carry on for longer. This is attractive to men as their ability to satisfy their partner is a major concern.

"I feel more comfortable sexually. I feel more of a man than I used to feel. You know women take longer to reach orgasm than us. So this time after MC, I am at a par with my wife." (Male: 20-30: Circumcised)

Beliefs to Change

The removal of the foreskin and the subsequent minimal 'growth' in the head of the penis has led to the belief that the head of the penis becomes disproportionately large causing bruising to the woman and the ultimate rejection of the man. The fear of an excessively large penis acts as a strong deterrent to undergoing MC.

"What I heard from friends and other people is that MC has some effects on the penis. When you want to sleep with a woman the penis can be too big." (Male: 20-30: Uncircumcised.)

As part of the sexual stigma attached to male circumcision is the belief circumcision leads to abnormal sexual activity. As one circumcised man put it, *"They think you are a sex maniac."* Indeed, the sexual stigma extends to the belief that the desire to circumcise is related to purely the desire to, *"having good sex, that is what I think."* (Male: 20-30: Uncircumcised.)

Beliefs to Reinforce: Male Circumcision offers some protection: *"Somehow there is that 60% protection which is important."*- respondent.

The belief particularly in urban areas that MC offers some protection against HIV and STDs has resulted in the practice being viewed as an opportunity for an individual to protect himself.

Beliefs to Reinforce: Male Circumcision is for 'anybody'- respondent.

The protective properties of MC against HIV, certainly in urban areas, have led to a change in the tribal specific notion towards male circumcision. The prior perception towards MC is that it is specific to and acceptable only amongst certain tribes. However, due to its role in the protection against HIV and STDs, MC is now viewed as an acceptable practice that can be adopted by anyone.

"It is not restricted to some tribes or some individuals. It is open to everyone, every man." (Male: 20-30: Circumcised)

Beliefs to Reinforce: MC and self- esteem: “I feel more of a man”

Male circumcision positively affects an individual’s self esteem. This is due to its part in prolonging the sexual act thereby allowing men to carry on for longer. This is attractive to men as their ability to satisfy their partner is a major concern.

“I feel more comfortable sexually. I feel more of a man than I used to feel. You know women take longer to reach orgasm than us. So this time after MC, I am at a par with my wife.” (Male: 20-30: Circumcised)

Beliefs to Reinforce: MC and genital hygiene: Both circumcised and uncircumcised men agree that male circumcision leads to better genital hygiene. This is mainly due to the fact that the penis is easier to clean and there is less irritation. Men often cite this as a positive add on in the decision to go for circumcision.

“Cleanliness also played a part. Before MC I used to see that white stuff which was irritating. But now I am always clean.” (Male: 20-30: Circumcised)

Attitude towards Male Circumcision: Beliefs to Change

The major concern towards male circumcision is the pain related to the procedure. The belief related to pain stems both from the traditional setting in which MC customarily takes place and lack of knowledge of the new clinical procedure.

Beliefs to Change: MC is painful: “The fear was that of the pain”

In the individual’s initial consideration of MC, the fear of the pain is paramount. The belief that MC is painful is related to the knowledge that the customary procedure of MC takes place without anesthesia, without proper after care and uses brutal methods. This belief is further exacerbated by the lack of awareness of the use of anesthesia in the clinic setting.

“Well first I had the fear in my mind before I told myself I have to do it. The fear was that of the pain. People are saying it was so painful that you cannot endure the pain. They were giving examples of those who do it traditionally...” (Male: 20-30: Circumcised)

2.4 Studies on acceptability of Male Circumcision in Sub Sahara Africa

Based on epidemiological, clinical and experimental evidence, male circumcision (MC) could have a significant impact on the HIV epidemic in selected areas. A review of studies on acceptability of MC in sub-Saharan Africa to assess factors that will influence uptake of circumcision in traditionally non-circumcising populations, thirteen studies from nine countries can be identified. Across studies, the median proportion of uncircumcised men willing to become circumcised was 65% (range 29–87%). Sixty nine percent (47–79%) of women favored circumcision for their partners, and 71% (50–90%) of men and 81% (70–90%) of women were willing to circumcise their sons (Westercamp & Bailey, 2006). Because the level of acceptability across the nine countries was quite consistent, additional acceptability studies that pose hypothetical questions to participants were unnecessary.

(Lukobo & Bailey, 2007) conducted a study in Zambia, where thirty-four focus group discussions were conducted - 17 with men and 17 with women - in four districts chosen to represent urban and rural communities where circumcision is and is not traditionally practiced. In communities where circumcision is little practiced, the main facilitators for acceptance were improved genital hygiene, HIV/STI prevention, and low cost. The main barriers were cultural tradition, high cost, pain, and concerns for safety. If MC is proven to reduce risk for HIV and STIs, most participants reported that they would seek circumcision for themselves or their partners or their sons if it was free or at a minimal cost. Acceptability of male circumcision for STI and HIV prevention appears to be high in Zambia.

CHAPTER THREE – METHODOLOGY

3.0 Study Site and period

The sample was drawn from University of Zambia and Evelyn Hone College within Lusaka. In addition to the Rationale for Sampling Tertiary Institutions highlighted in chapter 1, Section 4 on “Significance and Justification of the study”, the two tertiary institutions were selected conveniently considering the feasibility of accessing the institutions and the advantage the institutions have of enrolling a large number of students each academic year. The study was conducted within the period: March 16th – 30th 2012.

3.1 Study design and strategy

This study was a qualitative, Iterative study, yielding qualitative textual data.

3.2 Data format, data collection techniques and tools

Data collection included completion of a demographic form (See Annex) by each participant followed by the focus group discussions. Four focus group discussions with between 6 and 8 participants were conducted (see table.1). Each focus group discussion was conducted by one moderator. The focus group discussions were audio taped. One tape recorder was used at each discussion to provide backup recordings to the written scripts. The moderator led the discussions and ensured that all topics were covered with the aid of the interview guide. The note-taker assisted in setting up and monitoring the audio equipment, assisted with facilitation of the group as necessary and record statements during the free listing exercise. The note-taker also took general notes on the content of the discussion. These notes were used to provide more immediate access to the focus group discussion data for the purpose of determining emerging themes. The focus group discussions generally lasted about 50 minutes. Data collection from both institutions was completed within 10 days. From the discussions it was evident that focus groups were an efficient way of revealing social processes and the ways in which these processes are collectively shaped. Additionally, data was collected through in depth interviews with the aid of the semi-structured questionnaire. The participants in the focus group discussions recommended 10 participants for the in depth interviews, 6 and 4 participants from Evelyn Hone College and University of Zambia respectively.

3.3 Inclusion criteria

Sample population and inclusion criteria:

- (i) **Quota (purposive) sampling technique** was employed: Both male and female subjects were recruited for each focus group from each institution, therefore assuming a 1:1 block gender ratio. Hence one focus group for males and one for females from each institution.
- (ii) **Snow ball (purposive) sampling:** was used for the in depth interviews following the focus group discussions. Participants from the focus groups were used to refer the researcher to other people who participated in the study. This strategy got to the relatively inaccessible and hidden groups on campus.
- (iii) The **primary inclusion population** were male students enrolled at UNZA and EVELYN HONE regardless of year of study
- (iv) The **Secondary inclusion populations** are female students enrolled at the same University and colleges as above. They are close to the primary target so they can either facilitate or impede the desired action.

3.4 Participant Composition

All participants were recruited from their college campus. Extreme age group mixing was avoided in order to capitalize on people's shared experiences. All the group compositions were kept fairly homogeneous especially with respect to age range. The sampling methodology by its design ensured homogeneity of age / age distribution.

Participants were informed of the topic and objectives of the discussion. This prepared the participants for the discussions. Since it's preferable that participants have some knowledge about the topic, they were informed that they would discuss male circumcision. They were asked to feel comfortable discussing this topic.

3.5 Pilot Study (Pre Testing)

Before the study was conducted, the questionnaire was piloted on a separate group of students with the aid of the interview guide. A focus group discussion comprising 5 (five) respondents at Evelyn Hone College was conducted, when it was decided that the tools would not be revised. Pilot testing was conducted to ascertain the usefulness of the guide. This provided an opportunity to check whether the questions were too difficult, too easy or just accurate and the respondent's sensitiveness to the study in order to eliminate difficulties and inappropriate errors that could have arisen during the time of formulating the questions due to unforeseen circumstances. The pilot served as field training for the moderator, note-taker.

3.6 Data Collection

Permission from respondents was obtained prior to data collection. In this vein, the purpose, nature, benefits and risks of the study were explained to the participants including how the findings would be utilised. All respondents were availed with information as to how they had been selected. This helped in reducing uncertainties and questions for example, "Why have they selected me and not the other person". Permission to use the tape recorder was asked from the participant. The respondents were informed that if they had some discomfort or any anxiety, they may not wish to participate in the study. They would be availed with the necessary information so as to encourage their participation. All respondents were availed with information regarding direct and indirect benefits.

Correct and comprehensive information about Medical Circumcision was availed to the participants following the study, it was envisioned that the micro community would benefit, in the sense that the information shared with them by the respondents would increase their knowledge about prevention of HIV transmission concerning the actual procedure (Circumcision). Assurances were given that all information that would be provided by the respondents would be treated with utmost confidentiality. In this way respondents would be assured with anonymity. The researcher ensured that minimal personal data was collected on the participant especially geographical description. Respondents were availed with consent forms on which they appended their signatures as endorsement to participate in the study.

3.7 Data Analysis

Data analysis was conducted in the following manner:

3.7.1 Transcribing

The researcher, with the assistance of the note taker transcribed all the interviews to produce written text of the responses. It involved bringing together all of information-gathering approaches into one written form. Thus, the researcher wrote out each question and response (verbatim) from the interviews using recordings (audiotapes) and notes. Then important information related to the study was denoted through studying and reviewing the transcriptions.

3.7.2 Analyzing

In analysing the written texts, the researcher determined the meaning in the information gathered in relation to the purpose of the study. The researcher studied important information and looked for themes, commonalities, and patterns to try to make sense of the information and pay attention to both the manifest content as well as the latent content of the texts. Manifest content analysis involved looking at what the text says, thus dealing largely on giving description of the visible and obvious components of the text. In contrast, latent content analysis requires the researcher to interpret the underlying meaning of the text (Downe-Wamboldt, 1992) looking at the social actor's expressions.

Manifest content analysis was highlighted in this study by presenting reality in verbatim (*quotations of parts of speech or the whole speech in **Italics***). This is that part of the data that speaks for itself and allows the reader to make his/her own conclusions. This falls in the Husserlian transcendental descriptive phenomenology, which is compatible with theoretical health behavior models. In contrast, latent content analysis was be shown by the researcher's interpretation of the underlying meaning of the text by looking at the social actor's expressions. This involves a process of phenomenological reflection of grasping, elucidating or explicating of the essential characteristics of an experience of the underlying meaning contained in the textual data (Downe-Wamboldt, 1992).

Table.1. Sample Characteristics of the Study Population

Respondents			
		Number	Percentage
Target Group			
Sex	Male	22	55%
	Female	18	45%
	Total	40	100%
Circumcision Status	Uncircumcised	15	68%
	Circumcised	7	32%
	Total	22	100%
Employment Status	Employed	2	5%
	Unemployed	38	95%
	Total	40	100%
Marital Status	Married	3	7.5%
	Unmarried	37	92.5%
	Total	40	100%
Recruitment Form (Type)	Focus Group	28	70%
	In Depth Interviews	11	30%
	Total	40	100%

CHAPTER FOUR: STUDY FINDINGS

4.0 Pre-Amble

The focus groups had a well balanced mix, with homogeneous age-grouping. This apparently ruled out the danger of one group (age-group) being dominated or intimidated by the other. It was clear that they were "naturally occurring groups" (as in this case, people who school together) because friends and colleagues can relate each other's comments to incidents in their shared daily lives. Though Focus Group discussions did not generate more critical comments than in depth interviews, they seemed to have actively facilitated discussion of the topics because the less inhibited members of the group broke the ice for the seemingly shy participants, which made the discussions very interesting.

An additional advantage was that within the groups they challenged each other on contradictions between how they report their understanding of the topic and what they actually know (for example, "Male Circumcision is the removal of the foreskin from a male penis", in response one peer retorted, "*Come on man, just say from the penis because there's no such thing as a female penis*", a comment which basically was a very good icebreaker - Males 21 and 23.

4.1 Level of awareness of Male Circumcision, how and where to access the service

Manifest content of the study findings suggests that there is a remarkable and consistent trend in the way that Medical Male Circumcision is perceived amongst college and university student. They present virtually universal awareness about the procedure, its practice, where it should be conducted, the facts about circumcision and what the prevailing untruths are about the procedure.

While the awareness that circumcision is conducted in a lot of public and private institutions is abound, it is apparent from the responses that there is more confidence expressed for accessing the service from larger and more renowned institutions. The drawback would be that people are less inclined to go to places of a much lower level than those expressed in the group.

"The other thing is going to a place where you find most experienced people. Some places, people are not experienced and would want to train on you, which might lead to a complication. So it is better to go to places where one knows they will not have a complication. Well

personally, I would want to go to the UTH because that is the biggest hospital in Zambia and the most experienced doctors are found there, so it would be good to go there.”- Male Respondent.

Furthermore the practice of traditional circumcision which is conducted by certain ethnic groups is highly respected and it was felt that the practice should continue.

“I also think some prefer to go to traditional places like the Mukanda, others prefer to go there maybe because it is their traditional belief and due to the other reasons, the reason is that it also helps with them from contracting HIV. But some prefer health centers and others, the Mukanda.” (Female 29 yrs)

4.2 Factors that influence Men’s Health seeking behavior for Male Circumcision

The male respondents gave no hesitation to indicate that they are motivated to go for circumcision because of its protective effect against acquisition of HIV and other common STIs. Others said they would do it for maintaining good hygiene. An interesting finding was that there is a feminine influence to men going for circumcision on campus. As the young male respondents reported:

“Yeah, they say when you have that skin, some viruses are harbored that can cause infections, so others would want to do that for hygienic purposes.”- Male respondent 20 yrs)

“Some male students do actually have influence from their sexual partners (Girlfriends), and it seems this has become a major factor in coercing them to go for the operation even though they were unwilling to go for circumcision themselves. Sometimes our girl friends are the ones that advise us the guys to go for circumcision.”- (Male respondent 24 yrs)

Others still want to do it for “macho” reasons. It is evident that men are very much concerned about satisfying their sexual partners, or better still about achieving mutual satisfaction with their girlfriends, assuming they were having a sexual relationship.

“Yes sir, and just looking at benefits, apart from hygiene, for me, it would motivate me especially if I heard people say that I would become strong. That I will become strong, yeah, because most of the time ladies complain that they are not satisfied that men satisfy themselves and easily tire. So they say that when circumcised, you can have sex for 30 minutes. Ha ha ha (Laughing), able to perform 10 sexual rounds. So the skin is a problem, when the foreskin is

present, it feels like a sponge, but when circumcised, it is like the lips, you know how hard the lips are, you can even drink hot tea. Or maybe just to capitalize on what he was saying, yes it may be true, because when the penis is inside the skin, someone can just ejaculate when they touch the penis, so without the foreskin, someone can last longer.”(Males 19 – 25 yrs)

In addition, the respondents were concerned more about the other members of society who were not privileged with having correct information as they were. They did attest to the fact that some young men had concerns about going for circumcision because of the reports they get from peers, of say, experiencing pain during and after operation, one respondent reported as such:

“I think the other reason as well could be that when someone has undergone circumcision, it depends on what information they receive or the feedback that they get. For an instance I have a friend that was circumcised, I asked him how it was, so what he told me scared me, yah, the way he was walking it was like he was dying. So meaning I will go through the same experience, he said since I’m not strong for me it will be worse than him, so that scared me. So that is also contributing to the number of people failing to go for circumcision. At least for me who has been reading about circumcision knows that this may not necessarily be true.”(Male 21 yrs)

“Lack of sensitization in both rural and urban areas is what is hindering people from accessing circumcision services. You know because in most cases, if I can remember very well, sometime last year, a friend of mine from Samfya district in Luapula province didn’t not even know about this, he said he only knew of the Luvaes and Lozis to be practicing circumcision because of the Mukanda ceremony. So I told him that it is not about tribes, but it is for everyone. So maybe the major reason could be that there is no much sensitization.” (Male 25 yrs)

There were varying views expressed among the respondents however, for instance one such student highlighted the fact that sometimes it was the interplay of a couples personal decisions which emanate from their own constructed personal values.

“I think it also depends on how a person perceives himself. For an instance, there are people that believe in themselves so much, they say they will never play around; they are faithful and trust their sexual partners. So when you advise them to go for circumcision, they tell you that as sexual partners, they are faithful to each other. So I am relating this to RESPONDENT #3’s point of lack of sensitization.” (Male 22 yrs)

The research suggests that all male respondents, who are coming from communities that do not traditionally practice circumcision, would be willing to undergo the procedure. The participants said they would be willing to be circumcised because they have learnt that the procedure protects against acquisition of HIV by a large margin, while others were asked if they would undergo the procedure if it were provided in a hospital at low or no cost.

4.3 The perceptions and beliefs of Immediate Social networks perceptions on the uptake of MC.

The female respondents approve of male circumcision for males of all ages. They were quite conservative in their speech where to express themselves adequately they would have to be coerced for example, into explicitly referring to the male sex organ as a penis.

They are convinced that men are mainly going for circumcision because they have learnt that when you go for circumcision, the risk of contracting HIV and AIDS is reduced. However for them, the manifest issue was about enhanced hygiene for which they preferred a circumcised men to one who was not. The latent beliefs that they expressed unanimously were that they would encourage their partners because of sexual satisfaction, as one female respondent put it:

“I’m not sure but i hear that.....during sexual intercourse, a circumcised man takes time to ejaculate??.....and it helps to satisfy their sexual partners.”- (Female 22 yrs).

It was quite interesting to realize from the findings that the women are becoming involved in men’s health also for their own benefit. They say that they need to be empowered by protecting themselves as well. The manifest revelation could pick out this fact as quoted below.

“Some girls push their boyfriends to do that because they believe whatever is there around the uncircumcised penis causes cervical cancer.”- Female 25 yrs.

Though the female respondents presented a very good standing in as far as awareness and beliefs surrounding the subject under discussion, they had some beliefs that were inconsistent with current research which the researcher sought to dispel and clarify as quoted below.

Beliefs to change: *“Somebody I met said maybe they are just trying things like they do with malaria medicine, first it was Chloroquine, then Fancidar then now Co-artem and so he said maybe in future those that are circumcised will be told that there’s something else more effective and one does not need to bother about circumcision.”(Female 19 years)*

4.5 Possible unsafe sexual practices following Male Circumcision

In latent content analysis there was a subtle emergence of the aspect of risk compensation which was detected. One of the male respondents challenged his peer when he remarked, “What about when you said before the study that at least male Circumcision provides a condom like effect to your penis”? .However the majority of respondents clearly registered un-conflicting statements regarding the effects on sexual function. Most of them, both male and female respondents believed that sex was a construct of the mind and that it was up to two individuals to achieve sexual satisfaction.

CHAPTER FIVE – STUDY LIMITATIONS

5.0 Limitations

The study was potentially subject to researcher bias, as those who were quite fluent on English were preferred. These subjects most likely came from similar backgrounds

CHAPTER SIX: CONCLUSION

6.0 Conclusion

The results from this particular study suggest that most young male adults are willing to go for circumcision and for the correct reasons as stipulated in the hand out on “Basic facts about Circumcision”. In their opinion the main aspect which may limit scale up of circumcision would be lack of services as near to the prospective clients as possible and lack of sufficient information about male circumcision in various sections of society. The female students have grasped the opportunity and have become partners in their counterpart’s health seeking behavior, they are aware that there are indirect benefits for them when male partners have undergone circumcision. Lastly, the focus groups were valuable and appropriate when researching this particular topic. They allowed the investigator to gain insights into different forms of communication that the respondents use in day to day interaction, including jokes, anecdotes, teasing, and arguing.

CHAPTER SEVEN: RECOMMENDATIONS

7.0 Recommendations

- The medical Male Circumcision (MMC) program has to intensify targeted education and sensitization of underserved populations about medical male Circumcision and how it has been recognized as an efficacious intervention for HIV prevention.
- There is need to reinforce messages which will make people understand that promoting male circumcision has been recognized as an additional, important strategy for the prevention of heterosexually acquired HIV infection in men, and that male circumcision does not provide complete protection against HIV infection. Circumcised men can still become infected with the virus and, if HIV-positive, can infect their sexual partners.
- The Ministry of Health needs to accelerate scale up of circumcision particularly in rural areas, and it should be provided as an HIV prevention package, which includes: Promoting delay in the onset of sexual relations, abstinence from penetrative sex and reduction in the number of sexual partners. Providing and promoting correct and consistent use of male and female condoms.
- National level communication strategies need to ensure that clear and consistent messages are disseminated and that male circumcision is promoted within the context of comprehensive HIV prevention strategies. Messages should be carefully tailored, culturally sensitive, draw on local language and symbols, and be appropriate to the particular level of development and understanding of the population groups for which the messages are designed. Messages should be addressed to both men and women.
- The Male Circumcision program has to promote research that would assess the socio-cultural implications of male circumcision at national and local levels with the participation of key stakeholders and taken into account in the design and implementation of policies and programmes.
- Policy makers and programmers should maximize the opportunity that male circumcision programmes afford for education and behaviour change communication (BCC), promoting shared sexual decision-making, gender equality, and improved health of both women and men.

BIBLIOGRAPHY

Auvert, B. et al. (2005) Randomized, controlled intervention trial of male circumcision for reduction of HIV infection risk: the ANRS 1265 trial. **Public Library of Science Medical Journal**, 2(11), November, pp. 298.

Bailey, R. et al (2007) Male circumcision for HIV prevention in young men in Kisumu, Kenya: A randomised controlled trial. **The Lancet**, (369) 9562, February, pp. 643 – 656.

Bongaarts, J. et al. (1989) The relationship between male circumcision and HIV infection in African populations. **Gower Academic Journals (Internet)**, June 3: pp.373-377. Available from: <<http://www.aidsonline.com/pt/re/aids/home.htm>>(Accessed 26th July 2012).

Castellsague, X. et al. (2002) Male circumcision, penile human papillomavirus infection, and cervical cancer in female partners. **New England Journal of Medicine**, (346) 15, October, pp. 1105–1112.

CSO, MOH & TDRC. (2007). **Zambia Demographic and Health Survey**. Calverton-Maryland, CSO and Macro International Inc.

Curran, K. et al. (2011) Voluntary Medical Male Circumcision: Strategies for Meeting the Human Resource Needs of Scale-Up in Southern and Eastern Africa. **Pub Med Journal**, 8(11) November

Downe-Wamboldt, D. (1992) Content Analysis: Method Applications and Issues. **US National Library of medicine - National Health Institutes**, 13(3) July, pp. 313-21.

Drain, P. et al. (2006) Male circumcision, religion and infectious diseases: An ecologic analysis of 118 developing countries. **BMC Infectious diseases (Internet)**, November 6(1): pp 172. Available from: <<http://www.biomedcentral.com/1471-2334/6/172>> (Accessed 12th August 2012).

Gray, R., Kigozi, G. & Serwadda, D. (2007) Male circumcision for HIV prevention in men in Rakai, Uganda: A randomised trial. **The Lancet**, (369) 9562, February, pp. 657 – 666.

Kitzinger, J. (1994) The methodology of focus groups: Importance of interactions between research participants. **Journal of Sociology, Health and Illness**, March 16(1), pp.103 – 121.

NAC, (2009) **National Strategy for the Prevention of HIV and Sexually Transmitted Infections**. Series, No.1. Lusaka, National HIV/AIDS/STI/TB Council.

Ngalande, R., Levy, J., Kapondo, C., & Bailey, R. (2006) Acceptability of male circumcision for prevention of HIV infection in Malawi. **Journal of AIDS and Behavior**, 10(4) October, pp.377–385.

Patterson, B., & Mayer, K. ed. (2009) **HIV Prevention: A comprehensive approach**. 1st ed. California. Library of Congress Cataloging-in-Publication Data.

Population Services International (2007), **Target Group Profiles and Perceptions about the Brand, Product and Place regarding the provision of Male Circumcision Services**, 2007. Washington, Research and Metrics Corporation.

Sobngwi-tembekou, J.et al. (2008) Effect of Male Circumcision on the Prevalence of High-Risk Human Papillomavirus in Young Men: Results of a Randomized Controlled Trial Conducted in Orange Farm, South Africa. **The Journal of Infectious Diseases**, (199) 1, December, pp.14-19.

UNAIDS (2006) **AIDS in Africa: Three Scenarios to 2025**. Geneva, WHO Library cataloguing- in- publication data.

UNAIDS (2007) **AIDS Epidemic Update**. Geneva, WHO Library cataloguing- in- publication data.

Warren, K (2010) **HIV and Male Circumcision in Swaziland, Botswana and Lesotho: An Econometric Analysis**. Research report No. 273 June. Cape Town, Centre for Social Science Research: Aids and Society Research Unit.

Weiss HA *et al.* (2001). The epidemiology of HSV-2 infection and its association with HIV infection in four urban African populations. **Journal of AIDS and Behavior**, 15(4): pp.97-108.

Weiss, H.et al. (2008) Male circumcision for HIV prevention: from evidence to action. **Journal of the International AIDS Society**, 22(5) March, pp. 567-574.

Westercamp, N., & Bailey, R (2006) Acceptability of male circumcision for prevention of HIV/AIDS in sub-Saharan Africa: a review. **AIDS and Behaviour Journal**, 11(3) October, pp.341-355.

WHO (2005) **HIV infection rates decreasing in several countries but global number of people living with HIV continue to rise**. Geneva, WHO Library cataloguing- in- publication data.

APPENDICES:

Appendix I: Sample schedule for data collection

	Feb 2011	March 2011	April 2011	May 2011	June 2011	July 2011	Aug 2011	Sept 2011	Oct 2011	Nov 2011	Dec 2011
Preparation Tasks											
Complete study design including objectives											
Determine sampling method and sample size											
Adapt interview guide											
Hire staff											
Conduct training											
Arrange for data collection logistics											
Recruit participants											
Data Collection Tasks											
Pilot interview guide and finalize guide											
Conduct focus group discussions											
Data Analysis Tasks											
Transcribe and translate data											
Compile data (Thematic Organization)											
Write summary statements											
Finalize and Submit Report											

Appendix II

Budget Outline

Tasks	Amount budgeted
1) Consultancy or additional TA (including data analysis)	1,000,000 (ZMK)
2) Research agency (includes steps 3 to 9 below)	
3) Training moderators, note-takers, transcribers, and translators.	N/A
4) Piloting Interview Guide and Finalize Guide	200,000 (ZMK)
5) Recruitment	400,000 (ZMK)
6) Venue and incentives	2,400,000 (ZMK)
7) Materials and data Collection	2,000,000 (ZMK)
8) Transcription and Translation of Text	400,000 (ZMK)
9) Item Generation / modification through Workshops	N/A
Total Budget	6,400,000 (ZMK)

Appendix III: Screening Protocol/Demographic Form

Q.No.	Questions and Instructions	Code	Skip to
1	Town/Residential Area		
2	Age of respondent at last birthday	yrs	
3	Marital status	1.Married 2.Single	
4	What education level did you complete so far?	_____..... (specify)	
5	How long have you lived at your current residence?	{ / } Yrs	
6	What is your monthly income?	Optional _____	
7	Do you know anything about circumcision?	1.Yes 2.No →	End Interview
8	Have you undergone male circumcision?.. Not applicable to Female Respondents	1.Yes 2.No	1→ Circumcision referral
9	Do you intend to go for MC?... Not applicable to Female Respondents	1. Yes 2. No	1→refer intender 2→recruit non-intenders
10	Would you be willing to participate in a group discussion on male circumcision?	1.Yes 2.No	

Appendix IV: Questionnaire - Perceptions and beliefs of university and college students to male Circumcision

(1)Introduction: In order to make sure that we are all talking about the same thing, we need to talk about what we mean when we say ‘male circumcision’(15mins)

- a) When we talk about male circumcision, we are talking about?
- b) Where is circumcision carried out?
- c) Who is supposed to undergo circumcision?
- d) Who is supposed to handle a circumcision operation?
- e) What do men need to undergo circumcision?

Note: Ask the participants for their definitions of male circumcision. Once they have provided their definitions, review and consolidate.

(2) Identifying relevant determinants-free listing (20 minutes)

From writings and experience about circumcision up take, we have learned about some reasons why men may choose to undergo circumcision as well as some reasons why they may not. We want to know what you think

- a) What are some reasons why men may not wish to undergo circumcision?
- b) What do you mean by... (Follow up to previous question) ,How would you?
- c) What are some reasons why men your age undergo male circumcision?

(3)Contextualizing determinants (20 min)

We discussed some reasons why men may or may not go for male circumcision. I would like you to tell me more about the things we talked about.

- a) When do you think men would wish not to undergo circumcision?
- b) When do you think men would wish to undergo circumcision?
- c) Where do you think men like to undergo male circumcision?

(4)Wrap up [20 min] Play True/False game using, “Basic facts on MC” manual. Give explanations for the correct answers, and then give the participants a sheet with the correct information to take home to ensure that they do not go away with misinformation.

(5)ConclusionInvestigator to respondents: The purpose of today’s discussion was to: Find out reasons that men undergo circumcision as well as the reasons as to why they may not, find out situations that these reasons affect circumcision up takeIs there anything else that you like to add to help us better understand the things that we talked about today?

Thank you for your Cooperation

Appendix V



THE UNIVERSITY OF ZAMBIA
BIOMEDICAL RESEARCH ETHICS COMMITTEE

Telephone: 260-1-256067
Telegrams: UNZA, LUSAKA
Telex: UNZALU ZA 44370
Fax: + 260-1-250753
E-mail: unzarec@unza.zm
Assurance No. FWA00000338
IRB00001131 of IORG0000774

Ridgeway Campus
P.O. Box 50110
Lusaka, Zambia

October 21, 2011.

Your Ref: 008-05-11.

Dr. Chama Chanda,
School of Medicine,
Department of Public Health,
PO Box 50110,
Lusaka.

Dear Dr. Chanda,

RE: RE-SUBMITTED RESEARCH PROPOSAL: "PERCEPTIONS AND BELIEFS OF UNIVERSITY AND COLLEGE STUDENTS TOWARDS MALE CIRCUMCISION"

The above mentioned research proposal was re-submitted to the Biomedical Research Ethics Committee with recommended changes on 09 August, 2011. The proposal is approved.

CONDITIONS:

- This approval is based strictly on your submitted proposal. Should there be need for you to modify or change the study design or methodology, you will need to seek clearance from the Research Ethics Committee.
- If you have need for further clarification please consult this office. Please note that it is mandatory that you submit a detailed progress report of your study to this Committee every six months and a final copy of your report at the end of the study.
- Any serious adverse events must be reported at once to this Committee.
- Please note that when your approval expires you may need to request for renewal. The request should be accompanied by a Progress Report (Progress Report Forms can be obtained from the Secretariat).
- **Ensure that a final copy of the results is submitted to this Committee.**

Yours sincerely,

Dr. J.C. Munthali
CHAIRPERSON

Date of approval: 21 October, 2011

Date of expiry: 20 October, 2012

