

**ASSOCIATED FACTORS WITH UP TAKE OF SAFE MALE CIRCUMCISION IN
HIV PREVENTION IN MALES AGED 15-35 IN BIGANDO WARD, KIGULYA
DIVISION, MASINDI MUNICIPALITY**

BY

BIRUNGI JANET

DCM/0019/143/DU

**A RESEARCH REPORT SUBMITTED TO SCHOOL OF ALLIED HEALTH
SCIENCES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE AWARD OF DIPLOMA IN CLINICAL MEDICINE
AND COMMUNITY HEALTH AT KAMPALA
INTERNATIONAL UNIVERSITY**

JULY, 2017

DECLARATION

I hereby declare that this is entirely my own work, except where acknowledged, and that it has not been submitted before to this university or any other university or institution of higher learning for any academic award.

.....

Signature

BIRUNGI JANET

DCM/0019/143/DU

.....

Date

APPROVAL

The research report has been submitted with my approval as the candidate's university supervisor.

Signature.....

Mr. AGABA JUDE

Date

DEDICATION

This work is dedicated to my father Mr. Byabasaija Mutabazi, My guardians Mr Norman and Mrs Jalia Lukumu, and finally my brothers and sisters for their moral, spiritual and financial support. May almighty reward you abundantly.

ACKNOWLEDGEMENTS

Compiling a work of this type would be impossible without assistance from various people. With honor, I would like to put forward all those who morally and materially assisted me to successfully complete this report. My great thanks go to almighty God for protecting me up to this time.

I further remain indebted to my *supervisor*; MR. AGABA JUDE of school of allied Health Sciences, Kampala International University Western Campus, for his academic encouragement by reading and contributing valuable suggestions for improvement, he gave me parental advice, guidance, and counsel, who sustained me during my research, and agreed to supervise my research work.

Additional thanks go to the academic staff of the school of allied health sciences of Kampala international university for the knowledge they gave me. Indeed I am not what I was at the time I joined KIU and promise not to disappoint your efforts.

I also thank my best friends at the university, KIU administration and all the entire KIU community whose moral support and guidance kept me going.

I am also very grateful to the individual respondents in Kigulya Ward for their response and time sacrificed without who this paper would have been short of what it contains.

TABLE OF CONTENTS

DECLARATION	i
APPROVAL	ii
DEDICATION.....	iii
ACKNOWLEDGEMENTS.....	iv
ABBREVIATIONS	viii
ABSTRACT	ix
CHAPTER ONE: INTRODUCTION.....	1
1.1 Background	1
1.2 Problem statement	2
1.3 Conceptual framework.....	3
1.4 Purpose of the study.....	4
1.5 Specific Objectives	4
1.6 Research questions.....	4
1.7 Significance of the study.....	5
CHAPTER TWO: LITERATURE REVIEW.....	6
2.1 Introduction	6
2.2 Male circumcision and HIV Infection	6
2.3 Prevalence of SMC	7
2.4 Perceived benefits of SMC.....	7
2.5 Acceptability of SMC as an HIV prevention strategy	10
2.6 Barriers to circumcision	12
CHAPTER THREE: METHODOLOGY.....	15
3.0 Introduction	15
3.1 Study Area.....	15
3.2 Study design	15
3.3 Study population.....	15

3.4 Sample Size determination.....	15
3.5 Sampling Technique	16
3.6 Inclusion and exclusion criteria.....	17
3.6.1 Inclusion criteria.....	17
3.6.2 Exclusion criteria.....	17
3.7 Definition of variables	17
3.7.1 Dependant variables	17
3.7.2 Independent variables.....	17
3.8 Research instruments	17
3.9 Data collection procedures.....	17
3.10 Data analysis and presentation	18
3.11 Ethical consideration.....	18
3.12 Limitations of the study	18
CHAPTER FOUR:STUDY RESULTS	19
4.0 Introduction.	19
4.1 Demographic characteristics.	19
4.2 Knowledge about circumcision	21
4.3 Results on the attitudes towards circumcision	23
4.4 Response on the practice of circumcision.....	24
CHAPTER FIVE	24
DISCUSSION, CONCLUSION AND RECOMMENDATION	24
5.1 Introduction.	25
5.2 Discussion	25
5.2.1 Demographic characteristics.....	25
5.2.2 Knowledge about circumcision.....	26
5.2.3 Attitude towards circumcision	26

5.2.4 Practice of circumcision.	26
5. 3 Conclusion.....	26
5.3.1 Demographics	26
5.3.2 Knowledge about circumcision.....	27
5.3.3 Attitude towards circumcision.	27
5.3.4 Practice of circumcision.	27
5.4 Recommendations.....	27
REFERENCES	28
Appendix II: Questionnaire on factors associated with low turn up for safe male circumcision among adult males in	32
APPENDIX III: MAP OF UGANDA.....	38
APPENDIX IV: INTRODUCTORY LETTER.....	39

ABBREVIATIONS

AIDs	Acquired Immune Deficiency Syndrome
HIV	Human Immunodeficiency Virus
KIU-WC	Kampala International University Western Campus
LC's	Local Councils
MOH	Ministry of Health
RCT	Rapid Diagnostic Test
SMC	Safe Male Circumcision
STIs	Sexually transmitted Infections
VSMC	Voluntary Safe Male Circumcision
WHO	World Health Organisation

ABSTRACT

Introduction

This study was to determine Associated Factors with up Take of Safe Male Circumcision as Hiv Prevention in Males Aged 15-35 In Bigando Ward, Kigulya Division, Masindi Municipality. it was guided by the following Specific Objectives.

To explore and describe the socioeconomic factors that influences the uptake of SMC adult males.

To determine the knowledge of adult males on the importance of SMC as an HIV preventive strategy.

To determine the perceptions of adult males towards SMC and To find out suggestions from the adult males the strategies that can be employed to increase the uptake of SMC in Masindi Municipality.

Methods

The study design was a descriptive cross-sectional study with a study population of 384 and the sample size was determine using Kish and Leshie's formulae of sample size determination and it came to 117 however the response rate was 60.

Results

The findings revealed that; Knowledge was good as all the respondents, 60(100%) mentioned that they had heard about it mainly from the radios and health workers. Another factor that was hindering men from undergoing circumcision was their belief that is associated with complications, with 42(70%) saying so. The main complications mentioned were pain, 32(70%) and bleeding 22(52.4%). The attitude towards circumcision was fair with 38(63.3%) saying it was good against 4(6.7%) who said it was bad.

Conclusion and recommendation

It is recommended that; Health education of the respondents on the advantages of circumcision especially on the fact that it has protective effects against HIV as to faster positive behavior change, Government should possibly pay for all circumcision in private health facilities, Attitude towards SMC should be improved by regularly talking about in all public places like markets etc., The circumcision camps should improve on the privacy of the clients that turn up for circumcision, Promoting education of children in the study area so as to enhance a more literate population in the future, that is more likely to embrace circumcision.

CHAPTER ONE

INTRODUCTION

1.1 Background

Safe Male circumcision (SMC) is one of the oldest and most common surgical procedures in the world, and is undertaken for various reasons: religious, cultural, social, and medical (Thomas 2003). The World Health Organization (WHO) estimates that 30% of all males 15 years and older in the world are circumcised. Of these, about two thirds (70%) are Muslims (resident predominantly in Asia, the Middle East, and North Africa), 13% are non-Muslim and non-Jewish men living in the United States of America, and 0.8% are Jewish (WHO/USAIDS 2007). SMC is less commonly practiced in sub Saharan Africa. The percentage of circumcised men in Uganda is reportedly about 25%.

Based on compelling research evidence, WHO recommends that SMC be considered as an additional human immune-deficiency virus (HIV) prevention strategy for heterosexually acquired infections in men (WHO/USAIDS 2007). Following the endorsement of SMC as an additional HIV infection prevention strategy, initiatives to introduce safe voluntary medical male circumcision (VMMC) services commenced in 2008 in several sub-Saharan African (SSA) communities (Westercamp et al 2012).

Safe male circumcision (SMC) services were commenced in 2009 in most districts of Uganda to raise its prevalence of to 80% among HIV- negative men aged 0-49 years. The effectiveness of this intervention depends on many factors, not the least of which is the extent to which SMC is accepted and taken up by the target groups (Westercamp & Bailey, 2007).

The effects of the HIV prevention strategy of SMC are cumulative over a man's sexually active lifetime, and will therefore have most impact when implemented prior to sexual debut (Sawires et al 2007).

However, reliable preliminary statistical data from the human immune deficiency virus/ acquired immune-deficiency syndrome (HIV/AIDS) Monitoring and Evaluation Unit of the Uganda Ministry of Health (MOH) shows a low SMC uptake. It is reported at an uptake of 32 % which in

Masindi Municipality which indicates that there could be barriers in the uptake of SMC. The question is: what barriers affect the uptake of SMC in Uganda and Masindi Municipality in particular (Masindi district) in particular where its uptake is estimated to be even at a rate of 32% that is even lower than the national average of 55%.

Addressing this question will help policy makers to design effective SMC service programme implementation strategies to reduce the prevalence of HIV in the study area and country at large.

This cross-sectional study aims at identifying the key factors associated with the limited uptake of SMC as HIV prevention strategy among young males 15-35 years of age in Bigando ward, Kigulya Division Masindi Municipality.

1.2 Problem statement

The number of people living with HIV/AIDS is increasing every day. In the 2007, the Joint United Nations report on HIV/AIDS reported that 33.2 million people were living with HIV/AIDS. Of these, sub-Saharan Africa bears the greatest burden, accounting for 68% of the people.

Evidence shows that SMC is a powerful HIV prevention tool. A number of observational epidemiological studies in different parts of the world have reported that SMC significantly reduces the risk of heterosexual transmission of HIV from women to men (Sawires et al 2007). Randomized clinical trials (RCTs) conducted in Kenya, South Africa, and Uganda showed a 50-60% reduction in the acquisition of HIV infection in men following circumcision (Auvert et al 2005).

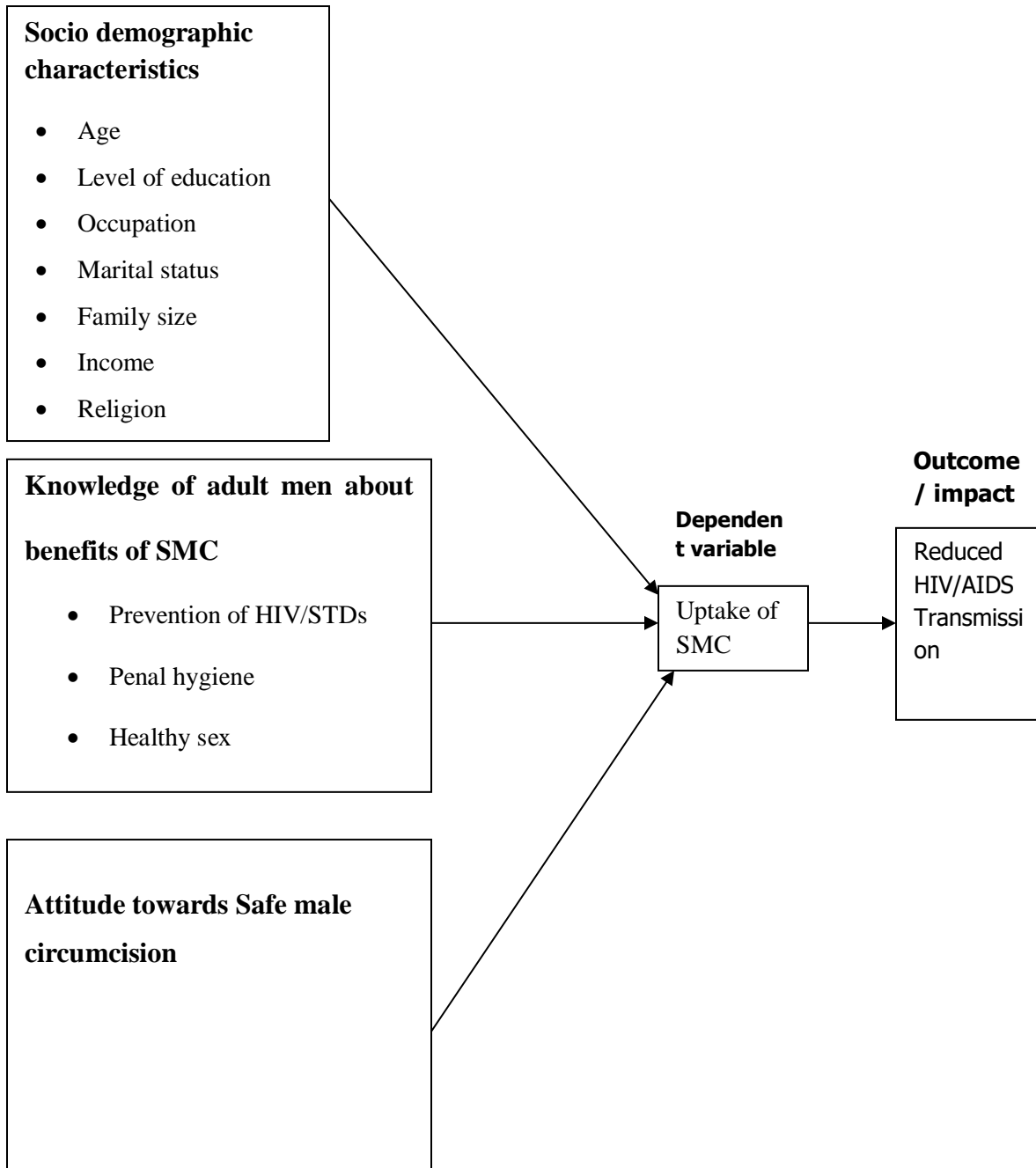
In Uganda, the ministry of health drafted the SMC policy in 2010 by including SMC as part of a comprehensive national preventive program (MOH, 2010). However despite effort to roll up SMC circumcision countrywide, the 2016 UDHS indicates that only 55 % of men aged 15-45 are circumcised.

The situation is worse in Masindi municipality, where the percentage of circumcised adult males is estimated at 32%. The estimated 68% uncircumcised men are at a greater risk of HIV/AIDS, compelling the researcher to establish the factors associated with the low uptake of the services in SMC as an HIV preventive strategy in Masindi Municipality, Masindi district.

1.3 Conceptual framework

1.3 Conceptual framework on factors affecting safe male circumcision in Masindi municipality

Independent variables



1.4 Description of the conceptual framework

The figure above shows the conceptual framework illustrating the multiple factors that determine/affect the uptake of SMC in ward, Division Masindi Municipality..

On the left side of the framework are the independent factors including sociodemographic characteristics, knowledge about the benefits of SMC and attitude towards SMC.

All these factors predict the uptake of SMC (dependent variable) among adult males affecting the rates of transmission of HIV/AIDS in the area.

1.4 Purpose of the study

The main purpose of this study is to determine factors that are associated with low uptake of SMC as HIV prevention strategy among adult males in Masindi Municipality Masindi district, Western Uganda.

1.5 Specific Objectives

1. To explore and describe the socioeconomic factors that influences the uptake of SMC adult males.
2. To determine the knowledge of adult males on the importance of SMC as an HIV preventive strategy
3. To determine the perceptions of adult males towards SMC
4. To find out suggestions from the adult males the strategies that can be employed to increase the uptake of SMC in Masindi Municipality.

1.6 Research questions

In order to address the above research problem, the researcher will attempted to answer the following research questions:

1. What is the knowledge of adult males on the importance of safe male circumcision?
2. What socioeconomic factors influence adult males to or not to undergo SMC?
3. What is the attitude of adult males in Masindi Municipality towards SMC?

4. What strategies can be put in place to increase the number of adult males undergoing SMC in Masindi Municipality?

1.7 Significance of the study

SMC is considered part of the comprehensive HIV prevention package for heterosexually acquired infections in men (WHO/USAIDS 2007). SMC is also said to be a cost-effective HIV prevention measure. Studies by Binagwaho et al (2010) and Gray et al (2010) show that large-scale uptake of SMC in a population with high HIV prevalence and a low circumcision rate has a considerable impact on the HIV epidemic and provides a cost-effective HIV prevention strategy.

However, SMC uptake in Uganda is significantly low due to various unknown factors. Therefore, studying these factors will have a significant long-term impact on the control of the HIV epidemic.

The study is expected to contribute to existing knowledge about the key factors that influence SMC uptake young males.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The literature review presents the views of other scholars and researchers that are related to the topic under study. Male circumcision is a surgical procedure during which all or part of the foreskin (the fold of skin covering the head of the penis) is removed by making a surgical cut around the head of the penis (Cichocki, 2008). Globally, there are different types of SMC. However, the most common type is where the foreskin of the penis is completely removed, exposing the entire glans penis (Doyle, 2005).

2.2 Male circumcision and HIV Infection

Since the beginning of the HIV/AIDS epidemic in the 1980s, researchers have been exploring the correlation between SMC and a lowered risk of HIV infection (Rennie, Muula & Westreich, 2007). The first paper which suggested a protective effect of SMC against HIV infection was published in 1986 by Fink (Fink, 1986 and Auvert et al, 2005). Since then, approximately 40 observational epidemiology studies have reported significant associations between MC and HIV-1 infection (Bailey et al, 1990).

Two meta-analysis of observational studies published in 1999 and 2000 reported a reduced risk of HIV infection among circumcised men, as high as half that of uncircumcised men (Weiss et al, 2000).

RCTs were done in 2007 in Kisumu, Kenya; and Rakai, Uganda among 2784 (aged 18-24 years) and 4996 (aged 15-49 years) uncircumcised HIV negative men respectively (Bailey et al; 2007; Gray et al, 2007). The reduction in the risk of acquiring an HIV infection was 53% in the Kenyan RCT (Bailey et al, 2007) and 51% in Uganda RCT (Gray et al, 2007).

Biological evidence shows that the presence of a significantly higher concentration of Langerhans cells, which are target cells for HIV – 1 in the mucosal layer of the foreskin, makes the man more susceptible to the HIV infection (Patterson al 2002).

Evidence exists that, the keratinized, stratified squamous epithelium that covers the penile shaft and outer surface of the foreskin provides a protective barrier against HIV infection (Ssabo & Short, 2000).

McCoombe & Short (2006) further argues that the penile shaft outer foreskin surface are well keratinized, while the inner mucosal layer of the foreskin is not. Furthermore, the sensitive foreskin may be more susceptible to micro-abrasion during sexual intercourse, which could provide an entry for STIs and HIV (Ssabo & Short, 2000).

2.3 Prevalence of SMC

Approximately 30% of the world's males aged 15 years or older are circumcised (WHO & USAIDS, 2007). Of these, around two thirds are Muslim (living mainly in Asia, the middle east and north Africa, 0.8% are Jewish, and 13% are non- Muslim and non – Jewish men living in the United States of Africa

In Southern Africa, the prevalence of adult MC is rather low and is estimated to be around 15% in countries likes Swaziland, Zambia and Zimbabwe (WHO & USAIDS, 2007).

2.4 Perceived benefits of SMC

Historically, SMC has been associated with religious and cultural identity (Rizviet al 1999). Worldwide, the primary determinant of SMC is religion, with almost all Muslim and Jewish males being circumcised because of the belief that a covenant was made between Abraham and God (Rizvi et al 1999).

In some societies, MC has been associated with health benefits such as prevention of local foreskin problems, cancer of the penis, urinary tract infections, STIs and genital hygiene enhancement (Cichoki, 2008; Morris, 2007; Schoen, 1997). Female partners of circumcised males have also reported a lower risk of acquiring Human Papiloma Virus (HPV) and cervical cancer (Castellsague et al, 2002).

Evidence from a study among the Sukuma ethnic group in North-west Tanzania, revealed that SMC is becoming a popular practice in traditionally non-circumcising groups because of the HIV prevention programs implemented in those areas (Nnko et al 2002).

Other studies further revealed that perceived health-related reasons such as enhanced penile hygiene and reduced STI risk among those communities popularize the SMC practice. In some sub-Saharan African countries, there is an indication that a high socio-economic status is associated with higher rates of circumcision is higher among men with higher levels of education (Halperin et al 2005), and those who live in urban areas (Nnko et al 2001). It was pointed out that, higher levels of education may imply social contact with a broader mix of different ethnic and religious groups. This in turn increases the likelihood of circumcision given such socio-behavioral interactions (Hayes et al, 1997).

In fact, in some societies, being uncircumcised is unacceptable and it is believed to cause diseases. For instance, in a qualitative study to analyze the cultural concepts, practices, and social relations associated with MC in two West African countries, Senegal and Guinea- Bissau, the foreskin was believed to be dirty, a source of bad smells and disease, and even evil (Kiang & Boiro, 2007). The study further showed that sexual relations between a man who is not circumcised and a woman who is a virgin is perceived to cause a terrible disease whose symptoms are similar to those of AIDS (Naing & Boiro, 2007).

In Kenya, a study conducted in Nyanza province among 107 men and 110 women found that 91% of men in Nyanza province associated SMC with better penile hygiene, even among those who preferred to remain uncircumcised (Mattson et al, 2005). The same study found that the majority of women, irrespective of their partners' circumcision status, believed that uncircumcised men are more likely to contract STIs and even HIV (Mattson et al, 2005).

In some African countries such as Zambia and Malawi, there is a belief that women's STI transmission is linked to their husbands/partners circumcision status (Lukobo & Bailey 2007; Ngalende et al, 2006).

Women in Malawi mentioned that maintaining proper penile hygiene of a circumcised partner is easier and reduced a woman's chance of STI infection including HIV. The study further indicated that women are considered responsible for cleaning their partners' penises after sexual intercourse as their cultural responsibilities, thus increasing their preferences to favour circumcision for their partner (Ngalende et al, 2006).

Although prevention of STI was overwhelmingly mentioned as a health benefit of MC in non-circumcising communities, the association of MC and HIV specifically, was less evident (Halperin et al, 2005). Even in some societies where MC prevalence was high, MC is believed to be beneficial for penile hygiene and reduction of STIs. There was however no mentions of a potential benefit on the reduction of HIV transmission even though HIV is an STI (Niang & Boiro, 2007).

In Zimbabwe, 80% of the 86 males interviewed had heard of the positive health benefits of MC, such as the reduction of STIs and maintaining penile hygiene (Halperin et al, 2005). However, the reduction of HIV or AIDS was only mentioned by 7% of men in the study sample. A similar knowledge pattern was reported in Malawi (Ngalande et al, 2006) and Tanzania (Nnko et al, 2001) where MC and HIV associations are less known.

In some societies, MC is believed to influence sexual performance and sexual pleasure for the man himself and for his female partner. According to Westercamp & Bailey (2007), the perception that circumcision influences sexual drive, sexual performance, and sexual pressure for the man and for his partner, which is likely to influence the decision to circumcise. Nevertheless this belief was found to vary between societies.

In a survey with 217 men and women in Kenya, a high proportion of men (43%) and the majority of women (76%) believed that circumcised men enjoy sex more and confer pressure to their female partners more than uncircumcised men (Mattson et al, 2005). The study further revealed that women enjoy sex more with circumcised men.

Furthermore, in qualitative study in Malawi, all sex workers and younger men interviewed reported that circumcised men enjoy sex more and give more pressure to their partners (Ngalande et al, 2006). In contrast, older and married participants believe that a circumcised penis is dry, not warm, and less sensitive and induces pain (Pricking) during penetration (Ngalande et al 2006). Scott et al (2005) concluded that beliefs around sexual pressure is more influential in some societies, thus a MC promotion campaign within the societies with influential belief about sexual pressure, might have more impact if it were to promote 'better sex' over 'safer sex'.

2.5 Acceptability of SMC as an HIV prevention strategy

Despite the strong evidence of a protective effective application of this knowledge to preventing HIV is the acceptability of SMC, especially in non-circumcising communities. It is logical that a higher uptake of MC in non-circumcising communities will be determined by the degree to which the intervention is accepted. In fact the morality of introducing an intervention, which is not culturally acceptable, even where it is potentially beneficial, is questionable. Van Dam and Anastasias (2000) stated that “to be an effective intervention, circumcision must be acceptable to local health ministries, religious and political leaders, health care personnel, and residents of the community”.

A review carried out by Westercamp and Bailery (2007) to establish the acceptability of MC for prevention of HIV infections in non-circumcising societies in Eastern and Southern Africa, revealed that the median proportion of uncircumcised men willing to become circumcised was 65%, ranging from 29% in Uganda to 81% and 87% in Swaziland and Botswana respectively.

The review further found that the huge variation of acceptability of SMC is dependent on the context of the study and how the question was posed. For example, one of the highest acceptability levels of 81% in Botswana is that the participants agreed to a procedure after information sessions were performed about the health benefits and the risk associated with the procedure, compared to 61% before the information sessions (Kebabetswe et al, 2003).

In the Dominican Republic, the number of men willing to be circumcised increased to 67% after an information session compared to 29% before the information session explaining the benefits of the procedure (Brito, et al 2000). Furthermore, 74% of men in the same study reported that they would be willing to circumcise their sons after attending the session.

The difference in acceptability levels before and after the information session indicates that knowledge about the benefits of MC is an important determinant of acceptability of the procedure in non-circumcising societies.

In different African countries where circumcision is not commonly practiced, men were more willing to be circumcised if they lived in urban areas and were employed (Scott, Weiss and Viljoen, 2005) and had higher levels of education (Halperin et al, 2005; Scott et al, 2005). The reason being

that, people living in urban areas and who are educated are believed to be exposed to circumcising tribes in schools and working areas, thus thought to increase their acceptance of SMC (Nnko et al, 2001).

Westercamp and Bailey (2007), argue that the age at which males become circumcised will have an effect on how rapidly MC interventions may impact the HIV epidemic. In their review of acceptability studies in Africa, the study found two leading directions; either to circumcise males as babies due to a simpler procedure, less fear, easier care, and faster healing, or circumcise males around puberty and adolescence when boys can decide and take care of the wound for themselves (Westercamp and Bailey, 2007).

Pre- pubertal circumcision was found to be associated with reduced HIV risk in survey conducted in the Rakai district of rural Uganda among 6281 men aged 15-49 (Kelly et al 1999).

There are several issues of concern with regard to the implementation of SMC. One of the main concerns is risk compensation, especially the reduction in condom use or increases in number of sexual partners that may arise from the belief that SMC offers total protection to HIV/STI transmission (Kalichman, Eaton, & Pinkerton, 2007).

Evidence indicates that in some population groups, people perceive SMC as total protection against HIV infection, and it has even been referred to as the “invisible condom” (Van Dam & Anastasi, 2000).

For example, in a study in Westonaria district of South Africa, 9% of 108 circumcised men and 7% of 374 uncircumcised men reported that circumcised men do not need to use condoms (Lagarde et al 2003).

The same study found that 30% of circumcised men and 18% of uncircumcised men believed that circumcised men can safely have sex with many women (Lagarde et al 2003). In a similar study of 100 men and 44 women in the South Africa, 2% of males and 5% of females cited that MC could afford total protection from HIV (Scott et al 2005).

Another issue raised is the possibility of complications of the MC procedure. Complications generally include bleeding, infection and surgical accidents, including penile necrosis and penile amputations (Williams and Kapila, 1993). These complications are mostly associated with poor health care or traditional circumcision by untrained personnel under non-sterile conditions. A retrospective review of the incidence of complications of 1279 cases (407 cases performed by unlicensed traditional circumcisers and 782 circumcision cases performed at a urology clinic by licensed surgeons) in Turkey found that 85% of the complications arose from cases performed by unlicensed traditional circumcisers (Atikeler et al 2005).

In another review involving a sample of 1007 males aged 5 – 25 in Western Kenya, the overall rate of adverse events was approximately 25%, with 35% of those circumcised traditionally experiencing at least one adverse event, compared to 17% of those circumcised medically (Bailey & Egesah, 2006).

Several studies have reported that most individuals in non-circumcising African societies prefer MC to be performed by medical personnel in hospital setting (Kebaabetswe et al), whereas in some societies where MC is a traditional practice, men prefer to be circumcised in a traditional settings by traditional surgeons. For instance, in a study of 100 males aged 10-65 years in the Eastern Cape Province of South Africa, 63% of the respondents favoured traditional surgeons (Meel, 2005).

The fact that 67% of the 100 participants in the same study were unaware of any risks associated with traditional circumcision indicates that the practice is deeply embedded in the cultural and behavioral setting of the people and few think of it as a health risk (Meel, 2005). In order to address concerns of safety of MC and risk compensations proper education for service providers and communities should be a component of a MC roll out programme.

2.6 Barriers to circumcision

A recent quantitative research study involving 46 FGDs with both males and females in Namibia found that some men perceived the foreskin to be a physical barrier or a protective covering for the penis. For these men, becoming circumcised was perceived as leaving one physically vulnerable to injury (Pappas-Deluca et al, 2008).

Other health related barriers included bleeding, and infections such as HIV transmission due to the use of one surgical blade used on various males in traditional MC settings (Halperin et al, 2005; Lagarde et al 2003; Rain- Taljaard et al 2003). There is evidence that there is a great deal of trust of western medical practitioners and as strong preference for circumcision services to be made available in public health facilities by trained health professionals (Westercamp & Bailey (2007).

In many non-circumcising communities, fear of pain during and after the procedure was perceived by people as a major barrier to MC acceptability (Kebaabetswe et al, 2003). In traditionally circumcising communities this was not a barrier as circumcision was meant to be painful especially if it is practices as rite of passage from child to adulthood for the reason that endurance to pain indicates the sign of adulthood (Ngalande et al, 2006).

However, for the societies that are not required to practice MC, fear of pain was seen as a reason to avoid circumcision.

Another perceived barrier to circumcise is that traditionally non circumcising societies perceive MC as “other societies “cultural practices”. In Namibia some respondents expressed a concern that they would feel they were adopting the culture of another group if they decided to circumcise (Pappas et al, 2008). The study further indicates that to circumcise is against God by altering a part of your natural body.

Furthermore, participants of studies in Kenya and Zambia expressed the opinion that if circumcision was promoted by the government, it should be provided at health clinics and hospitals for free or at reduced cost (Lukobo & Bailey, 2007; Mattson et al, 2005),

In fact, in Kenya 60 men (65% of total respondents) reported that they would only be circumcised if the procedure costs 150 shillings (approximately 5000 UGX), or less (Mattson et al, 2005). This indicated that some people may prefer not to be circumcised if the procedure is to be costly.

In conclusion, SMC is not a common practice worldwide, with only 30% of the male population estimated to be circumcised. Historically, SMC is associated with religious and cultural identity and there is an increasing account of the health benefits notably in terms of its protective effect against HIV infection. For the SMC intervention to be successful, societal knowledge, beliefs and

practices should be considered when implementing SMC procedure as an additional HIV prevention strategy.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter consists of the methods of carrying out the research and include:- Research design, study population, Area of the study, Sample size and selection, Data collection methods and instruments, Data analysis methods, Reliability and validity techniques among others.

.1 Study Area

The study was carried Masindi Municipality, Masindi district. This is an urban community and the major economic activity is small scale trading .The population has mixed characteristics ranging from educated and non-educated occupants and the main health problems are malaria, respiratory tract infections, diarrhea, HIV/AIDS as well as skin infections among others.

3.2 Study design

It was a descriptive cross-sectional study. Frankiel and Walllen (1993) described descriptive analysis as a method that involves asking a large group of people questions about a particular issue. Information is obtained from a sample rather than the entire populations at one point in time which may range from one day to a few weeks. Descriptive study design is preferred because it's easy and allows for quick data collection at a comparatively cheap cost (Grinnell, 1993).

3.3 Study population

The study populations were young males (15-35years); residents of Masindi Municipality, Masindi district.

3.4 Sample Size determination

Kish and Leshie (1965) formula was used to determine the number of participants to be interviewed.

$$n = \frac{z^2 pq}{d^2}$$

where n = sample size for a population greater than 10000

$z = 1.96$ corresponding to 95% level of significance

$d =$ the error to be tolerated (0.05)

$p =$ Expected population proportion of Masindi district
adult circumcised 32% which is 0.32.

$q = (1-p) = 0.68$

$d =$ margin of error 5% (0.05)

Therefore, $n = \frac{(1.96)^2 \times (0.32 \times 0.68)}{(0.05)^2} = 334$

Since the estimated number residential young males (15-35 years) according to the ward chairperson in the division of study is less than 10,000 ie it is about 143.

$$nf = \frac{n}{1 + n/N}$$

Where $nf =$ desire sample size for population less than 10,000

$n =$ calculated sample size for population greater than 10,000

$N =$ Target population.

$$nf = \frac{384}{1 + 384/163}$$

$$= 117$$

However the response rate was 60 in other ward those who accepted to be interviewed

3.5 Sampling Technique

The ward was purposely chosen due to the reported low uptake of SMC. By simple random sampling, 3 cells (LCIs) were sampled out of the 11 cells in the division. From each ward, 20 adult males were selected by systematic random sampling. This was done by moving from household in which young males were being interviewed.

3.6 Inclusion and exclusion criteria

3.6.1 Inclusion criteria

All young males aged (15-35 years), resident in the parish that accepted to be interviewed were included.

3.6.2 Exclusion criteria

Nonresidents, children (less than 15 years) and older men (above 35 years) and visitors (non-permanent residents) were not included.

3.7 Definition of variables

3.7.1 Dependant variables

The dependant variable was willingness or non-willingness to undergo SMC

3.7.2 Independent variables

These are variables that affect adult male's willingness to undergo safe male circumcision. They included the

- Social demographic characteristics like age, tribe, religion, education level and Marital status
- Knowledge of adult men about benefits of SMC
- Attitude towards SMC

3.8 Research instruments

The study instruments/tools used for data collection were interviewer administered questionnaires.

3.9 Data collection procedures

A structured and standardized questionnaire was used to collect and quantitative data using closed ended and open questions. The researcher collected data. Data was collected from participants after explaining to them the objectives and getting verbal consent.

3.10 Data analysis and presentation

Data was analyzed using excel and presented in percentage frequency distribution tables

3.11 Ethical consideration

This section describes how ethical requirements were upheld with special considerations given to human dignity. The major ethical issues that were safeguarded included; informed consent, privacy and confidentiality, anonymity and a researchers' responsibility.

A research proposal was presented to the school of Allied health sciences for approval. Then the researcher was given an introductory letter that was presented to Masindi Municipal offices granted her permission to carry out the survey

Interviewers/ participants were adequately informed about the procedures of the study in which they were asked to participate. Information on purpose of the research, expected duration of participation any discomforts to participants was addressed.

Privacy and confidentiality were ensured. The questionnaire administered did not contain the participants name to ensure anonymity of participants.

3.12 Limitations of the study

- Resources like funds were a problem , but were solved by requisition of external funding from friends and well wishers
- Some respondents were not co-operative in giving the information despite the explanations given; this was solved during the pretest where extremely sensitive questions will be removed
- Limited time due to other university activities such as classes, course works, since the researcher is still student at the university but this was be minimized by proper scheduling and utilizing weekends and any public holidays to carryout research demanding tasks such as data collection.

CHAPTER FOUR

STUDY RESULTS

4.0 Introduction.

This chapter contains the findings of the study in relation to objectives and literature about similar studies. Data has been organized into demographic characteristics, knowledge, attitude and practice of circumcision.

4.1 Demographic characteristics.

Table 1: Age of the respondents (N=60)

Age (Years)	Frequency	Percentage (%)
15-20	06	10.0
21-25	30	50.0
≥26	24	40.0
TOTAL	60	100.0

Half of the respondents, 30(50%) were aged 21-25 years while 24 (40%) were aged 26 years or more.

Table 2: Ethnicity of the respondents (N=60)

Ethnicity	Frequency	Percentage(%)
Banyoro	32	53.3%
Batooro	16	26.3%
Acholi	04	6.7%
Batooro	04	6.7
Others	04	6.7
Total	60	100

Slightly more than more one half, 32(53.3%) were Banyoro, followed by Batooro who were 16(26.7%).

Table 3: Marital status of respondents (N=60)

Marital status	Frequency	Percentage (%)
Married	32	50.0
Single	22	36.7
Cohabiting	04	6.7
Divorced /separated	04	6.7
Total	60	100

Half of the respondents, 30(50%) were married while 22(36%) were single.

Table 4: Education level of the respondents (N=60)

Education Level	Frequency	Percentage (%)
No formal education	02	3.3
Primary	24	40.0
Secondary	16	26.7
Tertially	18	30.0
Total	60	100.0

24(40%) were of primary education, 18(30%) were of tertially education, while 16(26.7%) were of secondary education.

Table 5: Religion of the respondents (N=60)

Religion	Frequency	Percentage
Catholic	22	36.7
Engelican	26	43.3
Moslem	01	1.7
Reate wital	05	8.3
Others	06	10.0
Total	60	100.0

26(43.3%) were catholic and 22 (36.7%) were Anglican. These were the predominant religions.

Table 6: Employment status of the respondents (N=60)

Employment status	Frequency	Percentage (%)
Employed	06	10
Un employed	10	16.7
Students	16	26.7
Self-employed	28	46.7
Total	60	100.0

Slightly less than one half, 28(46.7%) were self employed while 16(26.7%) were students.

4.2 Knowledge about circumcision

Asked whether they had ever heard about circumcision, all the respondents 50(100%) mentioned that they had heard about circumcision.

Table 7: Source of knowledge about circumcision (N=60)

Source	Frequency	Percentage (%)
Radio	30	50.0
Health workers	20	33.3
News papers	08	13.3
others	02	3.4
Total	60	100.0

Half of the respondents, 30(50%) mentioned radios, while 20(33.3%) mentioned health workers.

Table 8: Belief in circumcision to reduce the risk of other STIs, improvement of penile hygiene and risk of penilecancer (N=60)

Alternative	Response	Frequency	Percentage (%)
Circumcision protective against STIs	Yes	40	66.7
	No	16	26.7
	Not sure	04	06.7
	Total	60	100.0
Circumcision of protective against HIV	Yes	30	50.0
	No	20	33.3
	Not Sure	10	16.7
Circumcision reduce risk of Senile cancer	Yes	50	83.3
	No	02	3.3
	Not sure	08	13.3
Total		60	100

40 (66.7%) mentioned protection against STIs , 30(50%) protection against HIV and 50 (83.3%) reduce risk of cancer

Table 9: complications of circumcision (N=60)

Alternative	Response	Frequency	Percentage(%)
-------------	----------	-----------	---------------

Belief that there are complications associated with circumcision	Yes	42	70.0
	No	16	26.7
	Not sure	02	03.3
Complications of SMC mentioned by participants more than one response possible.	Pain	32	76.2
	Bleeding	22	52.4
	Others	14	33.3

Belief of complications was 42 (70%) mentioned complications; pain 32(76.2%) bleeding 22(52.4%)

4.3 Results on the attitudes towards circumcision

Table 10: Attitude towards circumcision (N=60)

Attitude	Alternative	Frequency	Percentage (%)
Circumcision being considered good or bad	Good	38	63.3
	Bad	04	6.7
	Not sure	18	30.0
	Total	60	100.0
Circumcised men have more sexual feelings than uncircumcised men	Agree	24	40.0
	Disagree	08	13.3
	Don't know	28	46.7
	Total	60	100.0
Women people men have more sexual feelings than un circumcised men	Agree	32	53.3
	Disagree	07	11.7
	Don't know	21	35.0
	Total	60	100.0
Circumcision causes unbearable pain	Agree	28	46.7
	Not sure	24	40.0
	Don't know	08	13.3

	Total	60	100.0
It is important to be circumcised at any age	Agree	42	70.0
	Disagree	09	15.0
	Not sure	09	15.0
	Total	60	100.0

38(63.3%) respondents considered circumcision good. 24(40%) agree on circumcised men having more sexual feeling , 32(53.3%) said women have more sexual feeling with circumcised men

4.4 Response on the practice of circumcision

Table 11: Practice of circumcision

Alternative	Response	Frequency	Percentage(%)
Circumcision status	Circumcised	25	41.7
	Not circumcised	35	58.3
	Total	60	100.0
Reasons advanced why many males are not circumcised more than one response possible.	Fear of pain	18	30.0
	High costs	12	20.0
	No privacy	09	15.0
	Others	06	10.0
	Don't know	12	20.0
Proposal to help scale upon the rate of circumcision among men.	Education advantages	40	66.7
	Moving it free of change	09	
	Making it as private as possible	08	13.3

Circumcised men were 25(41.7%), 35(58.3%) not circumcised. 18(30%) fear pain 12(20%) high costs..Education 40 (66.7%) respondents to scale up circumcision and 15% making it free

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATION

5.1 Introduction.

This chapter presents the discussion of the findings with reference to the relevant literature where necessary. It is arranged into discussion, conclusion and recommendations.

5.2 Discussion

5.2.1 Demographic characteristics.

Regarding the age of respondents half, 30(50%) were aged 21-25 years, 24(40%) aged were 30 years and the average age was 27 years. This is a fairly young male population that is sexually active, hence in need of circumcision to benefit from its protective effects against HIV/AIDS.

About the marital status, slightly more than one third, 22(36.7%) were single while half, 30(50%) were married. The unmarried males are at a high risk of HIV and could also benefit from circumcision.

Regarding the education of the respondents, more than one third, 24(40%) had formal education with only 18(30%) having tertiary education. This predominantly semi-literate population may not easily comprehend the relevance of circumcision.(SMC, Hayes et al 1997), revealed that the more educated males are more likely to be circumcised compared to the unmarried ones. Therefore more effort is needed to enable the residents appreciate more about SMC.

By religion affiliation, an overwhelming majority 48(80%) were Christians, while only 1(1.7%) was Moslem. The predominance of Christians could also partly explain the low numbers of circumcised men in the since Christianity doesn't compel believe to circumcise. Gizvi (1999) in his study established that are less likely to be circumcised, which seems to be the case in the study area.

About the employment of the respondents, 28(46.7%) were self employed, doing nonspecific small scale businesses, 10(16.7%) were unemployed and 16(26.75) were students. The predominance of low income earners partly explains their limited capacity for pay especially in private health facilities, where payment is majority.

5.2.2 Knowledge about circumcision.

Knowledge was good as all the respondents, 60(100%) mentioned that they had heard about it mainly from the radios and health workers. Even the UDHS 2016 revealed that all Ugandan adult males were knowledgeable about circumcision. However only 50(50%) believed that circumcision has some protective effects against HIV. This also partly explains the low number of circumcised men in the area among those that did not believe in this fact.

Another factor that was hindering men from undergoing circumcision was their belief that is associated with complications, with 42(70%) saying so. The main complications mentioned were pain, 32(70%) and bleeding 22(52.4%). Therefore some adult men could be shunning the exercise for fear of the above mentioned complications.

5.2.3 Attitude towards circumcision

The attitude towards circumcision was fair with 38(63.3%) saying it was good against 4(6.7%) who said it was bad. However a significant number 18(30%) were not sure whether its good or bad. In general as in table 8 about one third were generally negative or not sure about the benefits of circumcision.

5.2.4 Practice of circumcision.

The majority, 35(58%) of the respondents were not circumcised while only 25(41.7%) were circumcised. The main reason advanced for low numbers of circumcised men in the area were fear of pain and high costs in private hospitals.

Asked how male circumcision can be scaled up in the area, the majority, 40(66.7%) mentioned more education about advantage and making it completely free of charge in all health facilities.

5. 3 Conclusion

5.3.1 Demographics

- Most respondents were young males (mean age of 27) hence were all sexually active.
- Many of the respondents were married but a significant number were single.

- Many of the respondents were of a low education level.
- An overwhelming majority of respondents were Christians by religion.
- Most of them were self-employed in petty business while a significant number had nonfarm of employment at all.

5.3.2 Knowledge about circumcision.

- All the respondents had ever heard about circumcision mainly from radios and health workers. However only half of them believed that it has some preventive effective effects against HIV.
- Most respondents also associated SMC with complications, especially pain and bleeding.

5.3.3 Attitude towards circumcision.

The attitude towards circumcision was fair as most of them considered it good. However, a significant number was replaced number was negative towards circumcision mainly due to the unreasonable pain and limited knowledge about the advantages with it.

5.3.4 Practice of circumcision.

- The practice of circumcision was still low as 35(58.3%) of the respondents were not circumcised against 25(41.7%) who were circumcised.
- Among the reasons advanced for low uptake of circumcision included fear of pain, high costs and limited privacy in circumcision camps.
- The respondents proposed that in order to scale up circumcision, they should be given more information on the advantages of circumcision, make it free of charge, and improve on the privacy of circumcision camps.

5.4 Recommendations.

- Health education of the respondents on the advantages of circumcision especially on the fact that it has protective effects against HIV as to faster positive behavior change.
- Government should possibly pay for all circumcision in private health facilities.

- Attitude towards SMC should be improved by regularly talking about in all public places like markets etc.
- The circumcision camps should improve on the privacy of the clients that turn up for circumcision.
- Promoting education of children in the study area so as to enhance a more literate population in the future, that is more likely to embrace circumcision.
- Promote income generating activities to empower male adults to pay for circumcision services where necessary.

REFERENCES

- Bailey R. C & Egesah, O. (2006) *Assessment of clinical and Traditional male circumcision services in Bungoma district, Kenya; complications Rates and operational needs*. Special report
- Bailey RC, Moses S, Parker, C.B Agot, K Maclean, L, Krieger, J, N Williams, C. F, Campbell, R.T & Ndinya-Achola, J.O (2007). *Male circumcision for HIV prevention in Young men, Kenya: A Randomized controlled trail*. Lancet, 369 (9562) 643-56.
- Binagwaho, A, Pegurri, E, Muita, J. & Bertozzi, S (2010). *Male circumcision at Different Ages in Rwanda: A cost –Effectiveness study*. PLoS medicine , 7(1):211- 15.
- Cichocki, M. R. N (2008). *Circumcision reduces the risk of HIV Infection: How survey can protect Against HIV*. [online], Available: [http:// aids.about com/od/hivprevention/a/circumcision.Htm](http://aids.about.com/od/hivprevention/a/circumcision.Htm). [downloaded: 04/06/2017 10:06 AM]
- Fritz K, McFarland W, Wyrod R, Chasakara C, Makunme K. *Evaluation of a peer network-based sexual risk reduction intervention for men in beer halls in Harare, Zimbabwe*. AIDS Behav. 2000;9(47):6221–6228.
- Gray, R.H, Kigozi G, Serwadda, D, Makumbi, F, Watya, S, Nalugoda, F, Kiwanuka, N, Moulton, L.H, Chaudhary, M.A, Chen, M.Z, Sewankambo, N.K. Wabwire- Mangen, F, Bacon, Kebaabetse, P., Lockman S., Mogwe, S., Mandevu, R., Thior, I., Assex, M. & Shapiro, R.L.(2003). *Male circumcision: An Acceptable Strategy for HIV prevention in Botswana*. Sexually transmitted infections, 79(3):214-19
- Joint United Nations Programme on HIV/AIDS.(2008). *Using the Decision- Makers programme planning Tool for Male Circumcision Service Scale- up*. Meeting Report Dakar, Senegal.
- Kalichman, S., Eaton, L. & Pinkerton, S.(2007). *Circumcision for HIV prevention: Failure to fully Account for Behavioural Risk Compensation*. PLoS Medicine, 4(3): 137-139 Windhoek.
- Kerry R., Kiwanuka N Wawer, M.j., Serwadda, D., Sewankambo, N.K., Wabwire- Mangen, F., Li, C., Konde- Lule, J.K., (1999). Age of Uganda. AIDS, 13(3): 399-05.

- Ku, J.H., Kim M.E., Lee N.k. & park, Y.H. (2003). *Circumcision Practice pattern in south korea: Community base survey*. Sexually transmitted infections 79:65-67
- M.C, Williams, C.F.M, Opendi, P, Reynolds, S.J, Laeyendecker, O, *Prevention in Young men in Rakai, Uganda: A Randomized controlled trial*. The lancet, 369(9562):657-66
- Mc Coombe, S.G. & Short, R.V. (2005). *Potential HIV-1 Target Cells in the Human Penis*. AIDS, 20(11): 1491-95. Meel, B.L. (2005). Of the Transkei, Eastern Cape, South Africa. South Africa Family practice, 47(6):58-59
- Muga, R., Poulussen, R., Poulussen, R. & Onyango, T. (2005). *Acceptability of Male Circumcision and predictors of circumcision preference among Men and Women in Nyanza province in Kenya*, AIDS Care, 17(2): 182-94
- UNAIDS. *International partners call for accelerated access to voluntary medical male circumcision in eastern and southern Africa*. Geneva: UNAIDS; 2011.
- WHO. *Global HIV/AIDS response: Epidemic update and health sector progress towards universal access: Progress report 2019*. Geneva; WHO; 2009
- WHO. *Male circumcision quality assurance: A guide to enhancing the safety and quality of services*. Geneva: WHO; 2012.

Appendix I: Consent form

I am Birungi Janet a clinical officer trainee at KIU doing my research on safe male circumcision. I kindly request you to agree and participate by answering questions I am going to ask. This information is confidential and will be used solely for research purposes.

Do you agree to participate in this research?

Participant's signature.....

If yes thank you.

Appendix II: Questionnaire on factors associated with low turn up for safe male circumcision among adult males in

1.0 Demographic characteristics.

1.1 Age _____

1.2 Ethnicity

- a. Munyankole []
- b. Mukiga []
- c. Mukonjo []
- d. Muganda []
- e. Mutoro []

1.3 Marital status.

- a. Married []
- b. Single []
- c. Cohabiting []
- d. Divorced(separated)[]
- e. Widowed/widower[]

1.4 Highest education level.

- a. No formal education []
- b. Primary level []
- c. Secondary level []
- d. Tertially[]

1.5 Religion.

- a. Roman catholic[]
- b. Anglican []
- c. Moslem []

- d. Pentecostal []
- e. Others (specify)_____

1.6 Employment status.

- a. Employed []
- b. Un employed []
- c. Student/learner []
- d. Self-employment[]

2.0 Knowledge about safe male circumcision.

2.1 Have you ever heard about SMC?

- a. Yes []
- b. No[]

2.2 How did you know about it?

- a. By reading newspaper []
- b. Listening radios []
- c. Health units []
- d. Other specify _____

2.2 Does SMC reduce the risk of HIV infections?

- a. Yes []
- b. No []

2.3 Does SMC reduce risk of other STLs?

- a. Yes []
- b. No []

2.4 Does SMC help improve penile hygiene?

- a. Yes []

b. No []

2.5 Does SMC reduce the risk of penile cancer?

a. Yes []

b. No []

2.6 Do you know any complications of SMC?

a. Yes []

b. No []

2.5 if yes mention any complications that may rise from SMC

3.0 Attitudes towards SMC

3.1 Is SMC a good or bad procedure?

a. Good []

b. Bad []

c. Not sure []

3.2 If good, why?

3.3 If bad, why?

I would like to read some statements to you. For each question indicate whether you agree or disagree with the statement. If you do not know what to say, just tell me that you do not know.

3.4 circumcised men have more sexual feelings than uncircumcised men

- a. Agree []
- b. Disagree []
- c. Don't know []

3.5 circumcised men enjoy sex more than uncircumcised men

- a. Agree []
- b. Disagree []
- c. Don't know []

3.6 women prefer men who are circumcised.

- a. Agree []
- b. Disagree []
- c. Don't know []

3.7 Circumcised men can safely have sex without using a condom and don't get infected with HIV.

- a. Agree []
- b. Disagree []

- c. Don't know []

3.8 Does SMC produce unbearable pain?

- a. Agree []
b. Disagree []
c. Don't know []

3.9 It is very important for all men respective of their age to be circumcised.

- a. Agree []
b. Disagree []
c. Don't know []

4.0 Practice of SMC.

4.1 Are you circumcised?

- a. Yes []
b. No []

4.2 If yes, why?

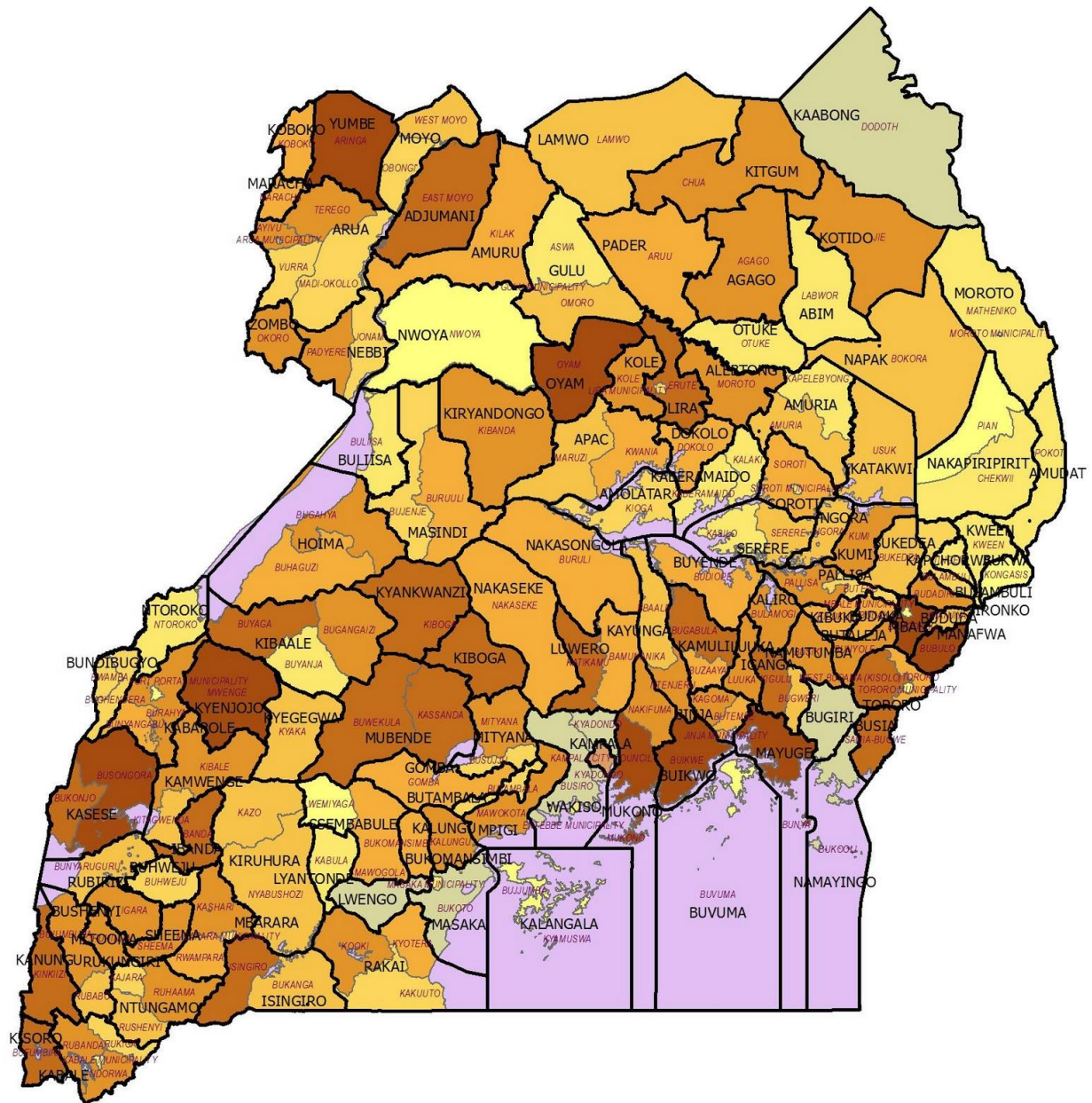
4.3 If no, why?

4.4 Why are most males in this area not circumcised?

4.5 What can be done to scale up SMC in your area?

END

APPENDIX III: MAP OF UGANDA



APPENDIX IV: INTRODUCTORY LETTER