FACTORS ASSOCIATED WITH UPTAKE OF SAFE MALE CIRCUMCISION AMONG MALE CLIENTS AGED 15-49 YEARS ATTENDING THE OUTPATIENT CLINIC AT MUKONO CHURCH OF UGANDA HOSPITAL –MUKONO DISTRICT

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DECLARATION

I **AMULEN HELLEN NYARIPO** hereby declare, to the best of my knowledge that this research study report is my original effort and has never been presented to this University or any other institution of higher learning for a scholarly award.

Signature……Date…….……..

APPROVAL

I hereby certify that **AMULEN HELLEN NYARIPO,** a student who is pursuing a Bachelor's degree in Nursing Science has worked upon this research report under my supervision.

Signature……Date…….……..

MRS. CATHERINE LWANIRA

SUPERVISOR

DEDICATION

This research report is dedicated to God the Father, the Son and the Holy Spirit who has made it possible for me to upgrade on my carrier as a nurse and has given me all the guidance throughout my studies.

Secondly to my beloved husband who has always encouraged me to work so very hard, to my children who most of the time remained in the house alone while I was away.

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OPERATIONAL DEFINITIONS

Male Circumcision (MC): Is the procedure of removing part or the whole foreskin of the penis for health, cultural or religious reasons.

Safe Male Circumcision: This is the surgical removal of the foreskin by trained health professionals for medical reasons rather than for religious or cultural reasons. This can be safely done to infants, adolescents and adults.

Uptake: Is the acceptability of male circumcision by the adult male as an added precaution for HIV prevention strategy, after creation of awareness.

Voluntary Medical Male Circumcision (VMMC): This refers to male circumcision by consent of the client without any coercion.

Culture: This is the way of life of a people. In this study it basically referred to the traditional practices and beliefs of different tribes living in Mukono community

LIST OF ACRONYMS

AIDS	-	Acquired Immunodeficiency Syndrome
BSC	-	Bachelor of Science
CDD	-	Circular Disposable Devices
DEO	-	District Education Officer
DHO	-	District Health Officer
DHS	-	Demographic and Health Survey
FHI	-	Family Health International
FDG	-	Focus Group Discussion
HCW	-	Health Community Worker
HIV	-	Human Immunodeficiency Virus
HR-HPV	-	High Risk Human Papilloma Virus
ISD	-	In Situ Devices
LCV	-	Local Council V
MC	-	Male circumcision
MMC	-	Medical Male Circumcision
MOH	-	Ministry of health
NAC	-	National Aids Council
NSP	-	National Strategic plan
PRB	-	Population Reference Bureau
RCT	-	Randomized clinical trials
SAGASF-M	-	Safe genital Anatomy and Sexual Function in Male
SMC	-	Safe male circumcision
STIs	-	Sexual Transmitted Infections
UAIS	-	Uganda AIDs indicator survey
UAC	-	Uganda Aids Commission
VMMC	-	Voluntary medical male circumcision
UNAIDS	-	Joint United Nations Program on HIV and AIDS
WHO	-	World Health Organization

ABSTRACT

Back ground: Safe male circumcision is believed to be associated with reduced HIV prevalence, yet it's uptake in Ugandan is still low. If well embraced and adopted widely, Safe Male Circumcision (SMC) can reduce new HIV infections by 60% (WHO, 2013). The purpose of the study was to investigate the factors influencing the uptake of Safe male circumcision amongst males aged 15-49 years in outpatients' clinic at Mukono Church of Uganda hospital, Mukono district.

Methods: This was a cross sectional study that was carried out 384 males aged 15-49 years. Data on uptake of safe male circumcision and factors associated with its uptake was collected using researcher-administered questionnaires. Data analysis was performed using Graph pad prism 7 software and Pearson chi square tests were used to assess the relationship between the socio demographic and personal factors with uptake of voluntary medical male circumcision. All statistical tests were 2-tailed and P values less than 0.05 were considered statistically significant.

Results: In this study, 159 (41.4%) of the respondents reported to have undertaken safe male circumcision. Except religion, all the socio demographic factors had a statistically significant relationship with uptake of safe male circumcision ($P < 0.05$). Among the personal factors, awareness and perception about SMC significantly affected the uptake of SMC, however distance from health facility never impacted on the uptake of SMC ($P = 0.236$).

Conclusions and recommendations: The uptake of SMC among the male clients was relatively low. It is recommended that rigorous community awareness about SMC programs should be done improve community knowledge and perceptions in order to scale up safe male circumcision.

CHAPTER ONE: INTRODUCTION

1.0 Introduction

This chapter presents the background to the study, statement of the problem, objectives of the study, scope of the study, research questions, purpose of the study, significance of the study and the conceptual framework.

1.1 Background

Male circumcision (MC) is where all or part of the foreskin is removed surgically (Kibira, 2017). The most common type of male circumcision is one in which the foreskin of the penis is completely removed, exposing the entire glans of the penis (Doyle, 2005). Safe male Circumcision (SMC) is the surgical removal of the foreskin from the head of the penis which is carried out by professionally trained Health Care Workers under local anesthesia to prevent pain (Kibira, 2017).

Historically, MC was associated with religious practices; however, SMC is increasingly adopted in many parts of the world. It is estimated that 38% of the world's males aged 15 years or older are circumcised of which about 62% are Muslims residing mainly in Asia, the Middle East and North Africa, 0.8% are Jewish and13% are non-Muslim and non-Jewish men living in the USA(Morris et al., 2016).

In some regions, male circumcision was already a cultural tradition prior to the arrival of Islam as seen among the Poro in West Africa, and in Timor in South-East Asia (Thomas, 2003); while in Kenya, this important cultural practice is observed among the Baluya ethnic group.

In Africa, especially in Northern and Western regions, MC is almost universal; however, its uptake in other parts varies considerably with low uptake reported in the African countries of Botswana, Namibia, Swaziland, Zambia and Zimbabwe (World Health Organization (WHO), 2013). The prevalence of MC is reported to be 21% in Malawi, 35% in South Africa, 48% in Lesotho, 20% in Mozambique and more than 80% in Angola and Madagascar. In East and Central Africa, the prevalence varies from almost 15% in Burundi and Rwanda to 70% in Tanzania and 93% in Ethiopia (WHO, 2013).

A demographic and Health survey, (DHS) carried out in Kenya reported that an estimated 84% of all Kenyan men are circumcised, though the percentage is much lower among the Luo and Turkana ethnic groups where circumcision is not a common cultural practice with only 17% and 40% circumcised respectively (DHS, 2006).

Circumcision is also associated with factors such as masculinity, social cohesion with boys of the same age who become circumcised at the same time, self-identity and spirituality (Niang, 2006). The association with initiation to manhood is strong in certain ethnic groups and acts as a symbolic identity of transition from childhood to adulthood. This is supported by the fact that certain rituals attach specific meaning to circumcision justifying its purpose within a given context as seen in the Dogon and Dowayo of West Africa and the Xhosa of South Africa, who view the foreskin as the feminine element of the penis, the removal of which makes a man out of the child (Silverman, 2004). In Uganda, MC is viewed as a sign of maturity among males in preparation for marriage among ethnic groups of Bamasaba and Sabiny from Eastern Uganda (Sabet et al., 2012).

In many studies, MC has been associated with health benefits such as prevention of local foreskin problems, cancer of the penis, urinary tract Infections, STIs including 60% reduction of HIV heterosexual transmission and genital hygiene enhancement, Human Papilloma Virus (HPV) and cervical cancer (Kripke et al., 2016); (Wamai, et al., 2015); Lissouba et al.,2011). Following the successful three randomized controlled trials that showed 60% reduction in HIV heterosexual transmission among circumcised males (Kripke et al., 2016); (Wamai, et al., 2015), WHO and other international bodies rolled out safe male circumcision (SMC) programs in several sub-Saharan African countries with high HIV prevalence and low prevalence of male circumcision (WHO/UNAIDS, 2007). An estimated nine million SMCs have been undertaken since 2007 in eastern and southern Africa (The AIDS Vaccine Advocacy Coalition (AVAC) & Family Health International (FHI), 2010; WHO/UNAIDS, 2007); while it is estimated that 20 million SMCs are needed to achieve 80% coverage of SMC by 2025 (Hankins et al., 2011). If this coverage is achieved and maintained, about 3.4 million new HIV infections could be averted, reducing the number of people needing HIV treatment and care, as well as saving considerable sums of money in future treatment costs (Auvert et al., 2008; Njeuhmeli et al., 2011).

The National Strategic Plan (NSP), 2007/08–2011/12 recognizes safe male circumcision as a cost-effective HIV prevention intervention. It is also acknowledged SMC is not 100 percent effective in preventing new HIV infections. As part of the HIV prevention strategy, the Uganda Ministry of Health had a target to circumcise 80% of males aged 15-49 years by the end of 2015 (Uganda National HIV Prevention Strategy, 2011-2015). Between April 2013 and August 2017, 188,512 males were circumcised at the national level (USAID/SUSTAIN, 2017); although a considerable geographic variation in MC prevalence exists, ranging from 2% in the Mid Northern region to 53% in the Mid-Eastern of Uganda (MOH et al, .2012). There is thus need to determine SMC uptake in different communities and the factors associated with its uptake so as to inform effective strategies that could be used to improve SMC uptake.

1.2 Problem Statement

Safe male circumcision is believed to be associated with reduced HIV heterosexual transmission. If well embraced and adopted widely, SMC can avert new HIV infections by 60% (WHO, 2013). It is estimated that 20 million SMCs are needed to achieve 80% coverage of SMC by 2025 (Hankins et al., 2011). If this coverage is achieved and maintained, about 3.4 million new HIV infections could be averted, reducing the number of people needing HIV treatment and care, as well as saving considerable sums of money in future treatment costs (Auvert et al., 2008; Njeuhmeli et al., 2011).

As far as Uganda is concerned, the Uganda MOH rolled out a voluntary safe male circumcision program as an HIV prevention strategy to improve the access of hard to reach, high risk and poor population to SMC services at free cost with a target to circumcise 80% of males aged 15-49 years by the end of 2015 (Uganda National HIV Prevention Strategy, 2011-2015). Despite rolling out SMC services both in hospitals and community outreaches, the uptake of SMC is still low. Between 2013 and 2017, only 188,512 males were reported to have been circumcised at the national level (USAID/SUSTAIN, 2017); while a geographic variation in male circumcision prevalence exists, ranging from 2% in the Mid Northern region to 53% in the Mid-Eastern region of Uganda (MOH et al,.2012). And in some districts such as Mukono, there is no published data regarding the uptake of SMC services or the factors that could influence SMC utilization. Therefore, it was against this background that the study sought to investigate the factors affecting uptake of safe male circumcision among a population of males aged 15 -49 years living in Mukono district.

1.3 Objectives of the study

1.3.1 The Main objective

To determine factors associated with uptake of safe male circumcision among male clients aged15-49 years old attending the outpatient clinic at Mukono Church of Uganda hospital Mukono district.

1.3.2 Specific objectives of the study

i) To establish the prevalence of uptake of safe male circumcision among clients attending the outpatient clinic at Mukono Church of Uganda hospital, Mukono district.
ii) To investigate the socio-demographic factors associated with SMC uptake among male clients attending the outpatient clinic at Mukono Church of Uganda hospital, Mukono district.
iii) To assess the personal factors influencing the uptake of SMC among male clients attending the outpatient clinic at Mukono Church of Uganda hospital, Mukono district.

1.4 Research Questions

i) What is the prevalence of uptake of SMC among male clients attending the outpatient clinic at Mukono Church of Uganda hospital, Mukono district?
ii) What are the socio-demographic factors associated with SMC uptake among male clients attending the outpatient clinic at Mukono Church of Uganda hospital, Mukono district?
iii) What are the personal factors influencing the uptake of SMC among male clients attending the outpatient clinic at Mukono Church of Uganda hospital, Mukono district?

1.5 Significance of the study

The Uganda MOH rolled out a voluntary safe male circumcision program with a target of having 80% males circumcised by the end of 2015 (Uganda National HIV Prevention Strategy, 2011-2015); however, the uptake of SMC is still low. By identifying the factors influencing the uptake of safe male circumcision in the community, data generated from the study will inform the various stakeholders and district health teams about the potential barriers of SMC uptake, which may be utilized in guiding strategies for improving the uptake SMC. This is important if the Uganda Ministry of Health target of having at least 80% of males aged 15-49 years circumcised is to be achieved as part of the HIV prevention strategy.

Furthermore, the research findings shall contribute to the already existing body of knowledge and provoke further research on the subject.

1.6 Conceptual Framework

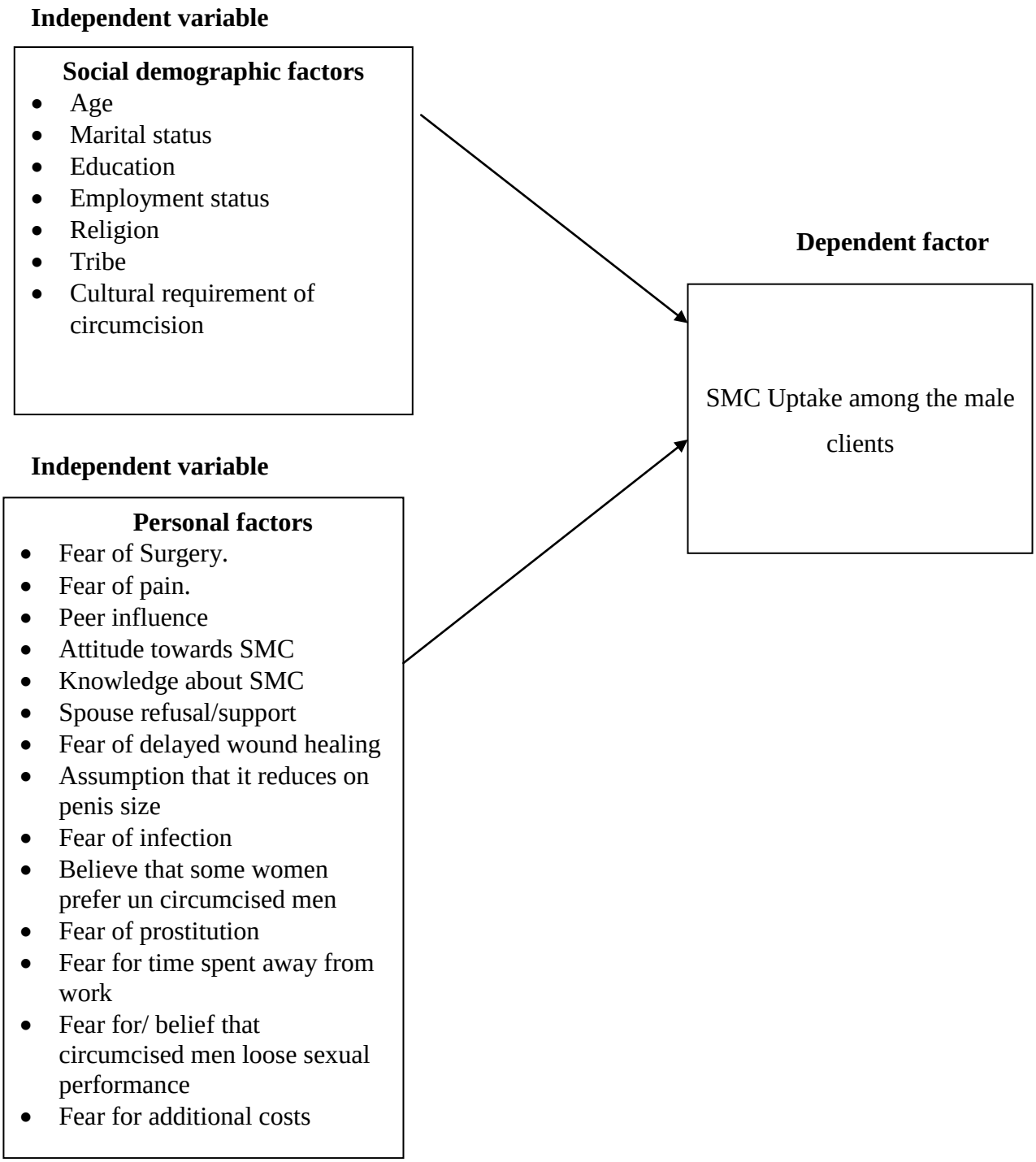

Figure 1: showing the conceptual framework of the dependent and independent variables

Description of the conceptual Framework

The conceptual frame work highlights the relationship between the dependent and independent variables of the study. The dependent variable is the uptake of SMC which is the outcome of the study. The independent variables include: socio-demographic factors, and then the personal factors associated with uptake of SMC.

SMC uptake may be influenced by the socio-demographic factors like age, marital status, education level, employment status, religion, tribe and the cultural/traditional beliefs. The personal factors include; fear of surgery, fear of pain, peer influence, spouse refusal/support, parental guidance/support, fear of delayed wound healing, assumption that it reduces on penis size, fear of infection. Other personal factors are knowledge of SMC, attitude towards SMC, believe that some women prefer un circumcised men, fear of prostitution, fear for time spent away from work, fear for/ belief that circumcised men loose sexual performance.

CHAPTER TWO
LITERATURE REVIEW

This chapter presents information from acknowledged studies related to the current study. This information is reviewed in relation to the study specific objectives that include prevalence of SMC uptake, the socio- demographic associated with SMC uptake and the personal factors influencing SMC uptake among male clients.

2.1. Prevalence of safe male circumcision uptake

Safe male Circumcision is the surgical removal of the foreskin from the head of the penis which is carried out by professionally trained Health Care Workers under local anesthesia to prevent pain (Kibira et al., 2017). It is currently well documented that safe male circumcision status and sexually transmitted infections (STIs) risk are associated and hence SMC is now part of HIV prevention programs worldwide Kripke et al., 2016; Morris et al., 2016).

Since MC is performed worldwide to treat adverse medical conditions such as phimosis, paraphimosis, balanoposthitis, and penile cancer (Clark et al., 2011; Morris et al., 2014), no country is likely to have a MC prevalence of zero and hence the lowest estimate set for any country is 0.1 %. Approximately, 38% of the world's males aged 15 -59 years are reported to be circumcised (Morris et al., 2016). Of these, 62.1% are circumcised for religious reasons and include the Jews or Muslims (Morris et al., 2016). The remaining 37.9% of all the circumcised men embraced SMC, while others got circumcised due to cultural reasons and other aspects (Morris et al., 2016).

In developed countries like Denmark, where non-medical circumcision is rare, a large survey found 4.5 % of Lutheran and non-religious men were circumcised (Frisch et al., 2011). Most of these MCs took place after infancy and given the historical opposition to MC in Denmark, the few men are circumcised probably for treatment of an adverse medical condition caused by the presence of the foreskin (Frisch et al., 2011). In Australia where MC has been common in infancy for many years, only 11.5 % of men were found to be circumcised after infancy mainly to treat medical conditions such as phimosis ; while others were fulfilling parental wishes (Mao et al., 2008).

In Sub Saharan Africa, the prevalence of male circumcision tends to vary due to ethnic and religious differences in the different geographical settings. Within North Africa and West

Africa countries which are majorly Islamic, MC is almost universal (WHO and UNAIDS, 2012). In some West African countries such as Burkina Faso and Ghana, the prevalence of circumcision is lower among the traditionalists and highest among the Muslims and Christians. In Cameroon, circumcision is almost universal among all religions except the Animists, among whom there is one particular ethnic group, the Mboum who embrace circumcision as part of their culture (WHO and UNAIDS, 2012). The uptake of SMC in Mutare in Zimbabwe is quite low and was estimated to be at 17% while 83% were not circumcised (Chiringa et al., 2016).

In Kenya the proportion of men who reported being circumcised increased significantly from 85.0% in 2007 to 91.2% in 2012. In Kenya's Nyanza Province, 66% of males in Nyanza are reported to be circumcised, compared to 91% in the rest of the country (Mwandi et al., 2011). In Tanzania, 70% of the sexually active males are circumcised. However, some regions have as high as over 95% circumcision rate, while others are as low as 24% with such differences in the uptake of SMC attributable to culture, traditions and religions (WHO, 2011).

The 2011 modeling for Uganda revealed that in order to attain 80% MC prevalence by 2025, it needed to perform 4.25 million MCs and an additional 2.1 million in the years 2016 to 2025 (Hankins et al., 2011). A target of having 4.7 million MCs by end of 2014 was supported by Obama on World AIDS Day 2011 (Kripke et al., 2016). In 2014, the Uganda Aids Commission reported the national SMC prevalence in Uganda of about 40% (UAC, 2014). As part of the HIV prevention strategy, the Uganda Ministry of Health had a target to circumcise 80% of males aged 15-49 years by the end of 2015 (Uganda National HIV Prevention Strategy, 2011-2015). Between April 2013 and August 2017, only 188,512 males were circumcised at the national level (USAID/SUSTAIN, 2017).

The prevalence of SMC uptake has been documented only in few regions of Uganda. According to a study that was carried out by TASO in Masaka district, prevalence of SMC among the population was found to be 34% (UNAIDS, 2015). In general, the prevalence of uptake of SMC varies considerably according to geographical location, with figures ranging from 2% in the Mid Northern region to 53% in the Mid-Eastern region of Uganda (MOH et al., 2012).

2.2 Socio-demographic factors associated with uptake of SMC

Socio demographic factors such as age, marital status, education level, employment status, religion, tribe, and cultural/traditional beliefs have been shown as important determinants of uptake of MC in different communities.

Age has a strong influence on uptake of SMC or its perception in various settings. This is because defendant on age, opinions and decisions undertaken tend to be subject to peer pressure or the degree of exposure and different perceptions regarding MC in the different communities. In the UK, infant male circumcision is routinely practiced, based on social and economic class (Gollaher, 2004). However, for religious reasons or other cultural reasons such as incorporating a child into the community, parents are left to decide (Sawires et al., 2007). According to a study that was conducted in UK by Leibowitz (2009), hospitals which had Medic aid coverage for infant male circumcision recorded 24% service utilization higher than those without.

The Jews and Muslims considered infant circumcision as a normal practice. The Jews practice it universally at infancy as an out ward sign of the covenant between them and their God as indicated in their holy book, the Torah (Genesis17:10). According to Hankins (2007), an estimated 665 million men above 15 years of age in the world are circumcised with the majority being Muslims**.** Overall, countries where this practice is almost universal, such as the North and most of West Africa are majorly Islamic (WHO and UNAIDS, 2012). In countries like Turkey where circumcision is socially acceptable, boys do not see themselves as men until they get circumcised (Hankins, 2007).

On the other hand, the acceptance of SMC among adults is quite low due to numerous reasons. Majority of the males that embrace SMC and are circumcised are youth below 30 years of age. In a cross sectional study that was carried out by Plotkin et al., (2013) to establish uptake of SMC in Iringa and Njombe regions of Tanzania, only 6% of the adult males above 25 years old had undertaken SMC. Majority felt shamed upon seeking services at an older age together with younger boys. It was thought to be improper to go for circumcision after puberty, and particularly after marriage and after having children. They also feared partner infidelity during the post-surgical abstinence period as the men heal up; loss of income as they miss to go to work during the healing period and fear of pain associated with post-surgical erections (Plotkin et al., 2013).

Furthermore, a study by Evens and others showed that adult men who are at high risk of HIV infection were not seeking SMC services in the numbers needed to have a rapid impact on the HIV epidemic in two districts of the former Nyanza Province, Kenya (Evens et al., 2014).

While curbing the scourge of HIV, a study that was done in Zimbabwe by Chiringa (2016) showed that adolescents are the most targeted group and older men are excluded from prevention strategies. The findings showed that the age category 18–29 years had the highest rate of participation (55%), followed by the middle aged (36%) and lastly the 41- to 49-year category [9%] (Chiringa et al., 2016).

From the historic perspective, circumcision has been associated with factors such as, social cohesion with boys of the same age who become circumcised at the same time, self-identity and spirituality. Moreover, the association with initiation to manhood seems a common practice with a number of ethnic groupings like Bamasaba of Uganda which reveals that a big number of youthful men are the ones who are circumcised (Sabet et al., 2012).

The influence of females also seems to play a very important role in as far as SMC is concerned. A research that was carried out in Zambia revealed that women's acceptance of circumcision and discussion with partners increased the men's willingness to undergo Safe male circumcision (Cook et al., 2015). Another study that was done by Riess and others in Kenya, documented that some females who had 'more knowledge' about circumcision educated their male counterparts and urged them to seek SMC service (Riess et al., 2014). Furthermore, qualitative studies carried out in Botswana and Tanzania showed both direct and indirect influence as well, with women using "soft" language to convince partners, mindful not to endanger their marriages or relationships, while others even denied partners sex to effect circumcision decision (Osaki et al., 2015).

Unfortunately in contrast, a study in Rakai, Uganda by Ssekubugu and colleagues before the national scale up of SMC, female partners were reported as deterring rather than motivating the decision to get circumcised (Ssekubugu et al., 2013). However in another study from Uganda carried out in 2017 men reported both direct and indirect ways that their partners influenced them to seek Safe male circumcision (Kibira et al., 2017). The direct influence was where the partners explicitly told their husbands or men that they preferred them circumcised while indirect influence included cases where the partners discussed

circumcision to be beneficial in varied ways without directly telling the men to go for it (Kibira et al., 2017). In patriarchal societies like Uganda, matters concerning men's sexual health may be one of the few areas where women have such strong influence (Kibira et al., 2017).

Most studies revealed that education level has an impact on level of knowledge. The education level of participants is amongst the important characteristics as it is associated with many factors that have a significant impact on health seeking behavior (Mbusa and Nkala, 2014). The results of the study by Mbusa and others also show cased a lack of in-depth knowledge about the benefits and limitations of MMC and without knowledge people are reluctant and skeptical about it (Mbusa and Nkala, 2014).

The role of education is very significant in the integration of people in society helping them to adapt to new ideas and fit with others in a given setting. For example, if the majority of the participants in a given study had primary education, it's obvious that this level of education is usually localized; limiting their interaction with people from circumcised community that they may not know what male circumcision is all about. One's level of education may also have an influence on their perception towards different things including male circumcision as reported in a study that was carried out in Zimbabwe by Etitya (2014). According to this study, the general impression was that more educated men are more likely to be aware of the benefits of male circumcision such as having reduced risk of HIV and other infections.

As reported in another cross sectional study, respondents with higher levels of education were more likely to be circumcised because they understood better the benefits of SMC for instance, proper hygiene, prevention of STI, s including HIV (Lau et al., 2015). Although a different study that was done in the Western Cape found out that uncircumcised men were 6 times more likely than circumcised men to have sex while intoxicated with alcohol (Toefy et al., 2015).

According to a study by Herman-Rollof et al., (2011), occupation was a significant determinant for SMC uptake. Participants reported that too much time away from work, especially if the man is the sole provider for the family is the most significant barrier to seeking the service. This barrier was especially noted among older men, and men working in the informal sector, including bicycle transporters, security guards, fishermen and others.

Participants believed that men might be away from work for a minimum of one week up to a maximum of 12 weeks after circumcision and would not be able to take care of their families. (Herman-Roloff et al., 2011). This is also supported by another study done in Zimbabwe that showed that the high SMC uptake among 18–29 year olds was because majority were still pursuing their education and not employed; while the older age groups feared for loss of time from their work (Chiringa et al., 2016).

In other studies, religious affiliation has been shown to strongly influence one's decision to undergo circumcision or not and hence religious and cultural beliefs were observed as barriers contributing to low uptake. According to Salem (2012) from studies done in Central and Western Africa, circumcision was shown to be one of the oldest operations in history within Jewish and Muslim religion where male infants are traditionally circumcised on their eighth day of life, provided there is no medical contraindication (Salem, 2012). The justification behind this is that a covenant was made between Abraham and God (Dick et al., 2010). However, Christians retain many of the features of early Christianity, of not opting for male circumcision based on the scripture by St Paul in (Galatians 5:6): 'in Christ Jesus neither circumcision nor uncircumcision count for anything' (Salem, 2012).

For example, in Malawi, the government of Malawi launched the VMMC program with the aim of circumcising 2.1 million people by 2016. However, according to the Malawi Ministry of Health, only 15,000 males volunteered for circumcision by late 2012, accounting for only 0.7% of the targeted number. Poor uptake of VMMC in the country was attributed to poor campaigning, communication, limited human resource, as well as religion, cultural and traditional beliefs. About 80% of the Malawian population is Christian who do not practice circumcision hence the low acceptance of VMMC. Circumcision is mainly practiced in Southern Malawi where there are migrant workers with a high HIV prevalence, accounting for 70% of the country's HIV infections (Mweningwe, 2013).

Apart from the Islamic influence especially in North and West African countries, other countries like Cameroon and the Democratic Republic of Congo which are predominantly non-Muslim were influenced into circumcision by other cultural factors such as Colonization. In Cameroon, the Nso tribe practice circumcision with the belief that it puts the penis in readiness for coitus and procreation; it tests the courage and endurance at the start of

adulthood and also moderates the male sexual instinct hence making him to act responsibly (Hellsten, 2011).

The majority of the African communities are however not culturally involved in the circumcision rituals (African Journal of AIDS Research, 2016). A study done in South Africa by Khumalo-Sakutukwa, (2013) indicated that local concepts of ethnicity and identity have influenced the perceptions and uptake of SMC (Khumalo-Sakutukwa et al., 2013). In Zimbabwe, where the majority of ethnic groups do not practice circumcision, social and cultural barriers to introducing SMC have also been reported to exist (Hatzold et al., 2014; Moyo, Mhloyi, Chevo, & Rusinga, 2015).

According to WHO Bulletin 84 (2006), circumcision rates are reported to be low in South Africa; apart from the Eastern Cape where as many as 80-90% of men are circumcised. The Xhosa men in this region undergo circumcision as a part of a traditional rite of passage to adulthood, between 18 and 20 years of age.

Similarly, In East Africa, circumcision is practiced as a rite of passage into adulthood by some tribes such as the Bantus. The Maasai see uncircumcised men as boys and timid cowards who do not have full male qualifications. Thus they associate circumcision with culturally desired marks of masculinity such as courage, maturity and sexual readiness while uncircumcised men are seen as immature and inclined to poor reproductive performance (KAIS, 2007). While according to Bailey et al., (2012), being uncircumcised in Kenya was regarded as an identity for the Luo culture. This was a cultural barrier to acceptability of Male Circumcision. Participants in this study regarded the absence of Male Circumcision as a significant component of Luo identity aside from language.

Such traditional practices and beliefs prevail and influence the uptake of SMC in Uganda given that the majority of ethnic groups in Uganda do not practice circumcision for cultural or religious reasons (Uganda AIDS Commission, 2014) and may explain the prevalence of traditional male circumcision of 20% (Wilcken et al., 2010 ; Makwa, 2012) which is considerably lower than in Kenya (80%) or Tanzania [70%] (Wilcken et al., 2010).

Some men believed that wound healing could be promoted by contact with vaginal fluids while sex with non-regular partners could chase away spirits – practices which encouraged unsafe sexual practices (Plotkin et al., 2013).

Information given by providers stressed that SMC did not afford complete protection from sexually-transmitted infections, however, a number of male community members held the view that they were fully protected once circumcised. Both men and women said that VMMC was good not just for HIV prevention but also as a way of maintaining hygiene among the men. Some beliefs and practices which may lead to negative health consequences for men and women or lead to strains in intimate partnerships include the belief that a married man should have sex with a virgin after circumcision to promote healing (Plotkin et al., 2013). The reason given is that the tighter vaginal opening of a virgin would force the skin of the suture together and improve the healing after circumcision.

Another common practice is to have sex with a woman (not necessarily a virgin) other than one's wife or intimate partner after circumcision as a protective measure (Plotkin et al., 2013). In other communities, it is believed that the first woman that a man has sex with after circumcision will be cursed to become a harlot; others hold that men release curses from their body after circumcision and that they should have intercourse with another woman to avoid instilling these curses on their partner. Examples of "curses" include infertility, only bearing girl children, and HIV. Such practices not only encourage risky behaviors, but also cause some female partners to dis-persuade their husband from seeking services or to become suspicious and angry with their partners after circumcision, which can itself lead to violence (USAID ASSIST Project, 2013).

As far as SMC is concerned, parental guidance/ support is very important. This is because for many communities especially in Africa, it is the biological father who is concerned with helping his son to transition into manhood. Since most of the practices of circumcision worldwide is determined by religion especially the Muslim and Jewish religions, it is usually the fathers who ensure that the male children are circumcised in accordance to the concerned religion (WHO, 2007). This is based on the justification in the Jew's Holy book, the Torah that a convent was made between Abraham and God, the outstanding sign of which is circumcision for all Jew's men (WHO, 2007). According to a study by Chiringa (2016) and friends that was carried out in Zimbabwe, decision making regarding circumcision was made by fathers in 95 (40.5%) of the respondents (Chiringa et al., 2016).

In Uganda among the Bagisu and Sabiny of Eastern Uganda, it is the fathers who decide which year their sons should be initiated into manhood through circumcision. The fathers sit down with their sons and encourage them with their own testimonies of how they proved that they were real men by taking up traditional circumcision without any fear. In their view, it is only cowards who get circumcised from hospital (Sabet et al., 2012).

Following the views of the nuclear family members, the opinions of extended family members appears to also have a very big influence on SMC. Examples of extended family members may include aunties, cousins, grandfathers and grandmothers. A study by Chiringa and others from Zimbabwe showed that about 18% of the circumcised males took the help of extended family members and 8 (3.4%) indicated grandparents to have made the decision of MC uptake (Chiringa et al., 2016). The influence of extended family members involves pledging gifts like cows, land, and financial support for treatment and many others if the candidate agrees to go for traditional circumcision. A case in point to support this school of thought is commonly manifested by the Bamasabas of Eastern Uganda where circumcision candidate may have a pledge of two cows when he under goes successful traditional circumcision (Sabet et al., 2012).

2.3 Personal factors influencing SMC uptake among the men

In various studies, SMC uptake has been reported to be influenced by personal factors such as the fear of surgery, fear of pain, peer influence, spouse refusal/ support, attitude towards SMC, Knowledge about SMC, fear of delayed wound healing, that assumption that SMC reduces on penis size, fear of infection, belief of some women prefer uncircumcised men, fear of prostitution, fear for time spent away from work, fear for/ belief that circumcised men loose sexual performance.

Males for many decades have considered SMC as a major operation even when they had received counseling. For example the Kenyan Government employed various interventions including research, messaging, social mobilization, community mobilizations, the use of the media and a Male Circumcision Consortium (MCC) coordination approach both at national and provincial levels to sensitize communities about the benefits of SMC, however, there is still misconception about SMC (Lau et al., 2015). A study done in Kenya showed that the post-surgical abstinence period was believed to be long and that would affect them as men because they find themselves not doing their manly role (Herman-Roloff., 2011). The desire to maintain the status quo in the circumcised men was also thought to promote promiscuity.

Pain is the unpleasant feeling experienced by someone. It is a very important variable among psychological factors that makes people to shy away from SMC. In Malawi, Chilungo (2014) showed that the fear of pain was repeatedly mentioned because it directly affects one's participation in both physical and psychological activities like cognitive and motor activities. For example, sleep; walking, daily queues are all affected by pain (Chilungo et al., 2014). A study by the Male Circumcision Consortium (MCC) in Kenya also identified that fear of pain as the main barriers to SMC adoption (MCC, 2014).

The fear of pain was also a major concern regarding the uptake of SMC in a study that was done in rural Kisumu. Men expressed concern about pain during surgery, but also feared pain during recovery (Chiringa et al., 2016). However, circumcised men said the experience was not as painful as they had expected. All of them reported managing their pain well during recovery by following instructions from their VMMC providers.

According to Scolnic (2014) in a study that was done in Kwazulu Natal orange farm South Africa, men's fear of pain was not limited to cutting off the foreskin, but rather pain was associated with the entire process of circumcision, waiting for the procedure and observing men who have just been circumcised which made them suffer psychological pain, pain from local anesthetic injections, pain from having stitches removed, and pain through the healing period, particularly when one has unintended erections. Men feared for erections as a cause of pain in the weeks following circumcision and some participants even requested a medication to prevent erections. Nearly 60% of the survey participants declared that the fear of pain prevented other men from seeking VMMC. Others expressed the fear for time off from school or work as they recover from the pain of circumcision, and a perceived lack of time (~20% lack time off from school and ~17% lacked time off from work) had caused men to delay seeking VMMC (Scolnic et al.,2014).

A study done in Kampala and Kayunga, Uganda by USAID also noted that peer influence was a key factor that influences decisions to seek medical male circumcision. Where one's peers were already circumcised, or where they made a group decision to go for circumcision, one was likely to comply with peer influence and go for circumcision. Some young men got circumcised in order to be accepted, respected and/or to enjoy the company and support of their peers. To a considerable extent, peers also influence the choice of circumcision method. The same study also found out that the importance of positive societal attitudes is that they

offer social support and lend social acceptability to certain practices. As such most people are likely to adopt those behaviors for which there is such social support. A number of participants thought circumcised men were viewed favorably in their respective communities, which was thought to encourage more people to adopt (USAID, 2013).

In other studies, spousal support was seen as a significant influence for SMC uptake. In Zambia, circumcision is not only a male issue, but women have begun to demand for it as a way of reducing cervical cancer (Bailey et al., 2013). Also, according to the study carried out by Ogbonnaya (2015) from South Africa, Rural Zulu women had concerns about the sudden interest of their partners to undergo circumcision, insinuating that they are having sex with other women (Ogbonnaya, 2015). This concurs with another study which reported that circumcised men are viewed as promiscuous (Lau et al., 2015).

Circumcised men in other settings have reported better sexual satisfaction after SMC (Brito, et al., 2017). Participants believed that women preferred circumcised men when making choices for sexual partners, and indeed some women have reported this preference in other studies (Plotkin et al., 2013; Riess et al., 2014). In a qualitative study that was done in Kalangala district in Uganda using focused group discussions (FGDs), female partner support and encouragement was associated with increased willingness to undergo the procedure (Jones et al., 2014).

The attitude of the respondents themselves is very paramount in influencing weather SMC is taken or not by the respondent. For instance, studies by Chiringa and others in Zimbabwe revealed that 37% of the respondents made the decision themselves (Chiringa et al., 2016). Furthermore, regarding their views, 87 (37%) reported that circumcision is viewed as worthless, 30% as shameful, 20% attached it with promiscuity, 23 (10%) viewed it as honorable, whilst 3% felt it is defied by the gods(Chiringa et al., 2016).

According to Tarimo (2012), in their study on the perception on MC as a preventive measure against HIV infection by the people of Tanzania, they found out that women tended to disrespect uncircumcised men as they did not know what disease is carried in the white powder (dry seminal fluid) during sexual intercourse(Tarimo et al., 2012). They added that uncircumcised penis needs regular cleaning in order to avoid accumulated fluids which produce an offensive smell (Tarimo et al., 2012). Most of the individuals had a negative

attitude towards male circumcision after childhood saying it is shameful to be seen by others, seeking services at an older age together with younger boys (Plotkin et al., 2013).

Plotkin (2013) reports only very few males (6%) of the VMMC clients of Iringa and Njombe in Tanzania were 25 years old and beyond. Majority felt a shamed upon seeking services at an older age together with younger boys. It was thought to be improper to go for circumcision after puberty, and particularly after marriage and after having children; while some uncircumcised men in non-circumcising tribes were not willing to be circumcised because they thought they were "okay" the way they were. Some perceived circumcision as an old and outdated practice, while some perceived the removal of the foreskin to be a health risk as the foreskin acts as a protective shield to the penis. Women had positive attitudes towards male circumcision especially those who are in support of the health benefits associated with circumcision (Bailey et al., 2013). More studies conducted on attitudes towards male circumcision concluded negative attitude towards circumcision performed after childhood (Osaki et al., 2015).

Poor knowledge regarding SMC was reported to be a significant barrier of SMC uptake. In one study done in Zimbabwe by Chiringa (2016), almost three-quarters of the population defined circumcision wrongly, some indicated that they did not know what it is, while others viewed it as removal of the penis head and had socio-cultural perceptions that circumcision is a sinful act and that nobody has the power to change what God has created (Chiringa et al., 2016). Bailey (2007) concurs with the above as he asserted low acceptability of male circumcision amongst Christians because of the belief that it was a sin to change the way one was created (Bailey et al., 2007). Furthermore, a study by Kelly (2012) amongst Christians in Papua New Guinea, shares the same view as that mentioned above as male circumcision was considered unacceptable because they believed that HIV prevention was found in God from being unfaithful (Kelly et al.,2012).

In a study that was carried out in Uganda by Mbonye and others, findings showed that males who had been circumcised had knowledge on the benefits that circumcision has as most of them stated it reduces HIV transmission by 60% and that it reduces the risk of HIV infection (Mbonye et al., 2016). Similar findings were reported in another study by Mhangara (2011), which affirms that knowledge of the benefits of male circumcision is paramount in building a positive perception of the procedure (Mhangara ,2011). Those who had not been circumcised

opined that circumcision will lead to unsatisfactory sexual performance and pain and thus preferred to avoid it (Chinkoyo and Pather, 2015).

Fear of delayed wound healing has been seen as a significant factor to the uptake of SMC among males. The superstition that since this wound is covered in clothing gives an implication that the wound will take long to heal which may cause delay in return to normal function of the organ and subsequently, delay to go to work and hence loss of job, psychological stress among others. Adult male circumcision on the other hand is more technically demanding, requires longer time to completely heal, needs suturing or other means to maintain hemostasis and is associated with longer time to wound healing and thus is known to result in greater incidence of complications (Barone et al., 2014).

The fear for loss of sexual performance by the males was considered as a serious barrier to SMC uptake. In a cross-sectional study of 1,059 uncircumcised and 310 circumcised men who filled an online Self-assessment of Genital Anatomy and Sexual Function Male (SAGASF-M) questionnaire in Belgium, circumcised men reported less sexual pleasure, less intense orgasm, greater penile shaft discomfort compared to uncircumcised men; with less sexual pleasure noted in those circumcised during adolescence compared to those done in childhood (Bronselaer et al., 2013).

Studies conducted on sexual functioning in men who were circumcised as adults have shown conflicting reports while some have noted increased difficulty with masturbation and reduced sensitivity and penile sensation after the procedure (Chinkoyo and Pather, 2015). In Zambia, Krieger (2015) did not find significant evidence of adverse sexual functioning in circumcised men when compared to their uncircumcised counterpart (Krieger et al., 2015). Yet from the study that was conducted by USAID (2013) in Iringa Tanzania, some participants presented the fear of impotence or reduced sexual performance as a result of circumcision. Some reported hearing rumors that circumcised men could not satisfy their wives and that there was a big chance that the wound would not heal properly. Following results from the same study, there was fear of marital problems due to circumcision. This is because when a man fears for the inability to satisfy his wife, one cannot afford to lose his wife because of adult circumcision, therefore they prefer to pull out and he fails to adhere to the procedure (USAID, 2013).

In Tanzania, some women expressed concern about partner infidelity during the post-surgical abstinence period (Plotkin et al., 2013). The female partners were in agreement with the men who were not circumcised which they associated it to prolonged abstinence (Plotkin et al., 2013). Furthermore, findings done by a study in Uganda by Kibira 2015 on sexual risk behaviors and willingness to be circumcised among uncircumcised adult men reflected that most women prefer to have sex with uncircumcised men (Kibira et al., 2015) and others indicated that women were significantly more likely to report vaginal dryness with a circumcised partner (Kibira et al.,2015).

In Malawi, Lau (2015) in a study utilizing the Demographic and Health Survey (DHS) of 11-priority countries in East Africa reported that circumcised men were more likely to engage in risky sex behavior and had sexual debut before the age of 14 years although these differences were not seen in unadjusted regional results. In that study, some men have also expressed reservations about SMC because they perceive that it is "the same as traditional circumcision practices"(Rennie et al., 2015). Some men have also observed social pressure as another factor reducing uptake of SMC in communities with high prevalence of traditional circumcision but low prevalence of medical circumcision. Women were noted to positively influence the willingness of adult males to undergo medical circumcision (Osaki et al., 2015). Beliefs surrounding circumcision could lead to risky sexual behavior among men and which could propel the HIV transmission risk post SMC (Mbonye et al., 2016). For example, in some studies, men reported a belief that the initial sexual intercourse post circumcision was for cleansing. Some young men in the study had one off sex without use of condoms with casual partners adhering to this belief, which may increase the risk of HIV infection. This behavior has also been highlighted in other places in Uganda (Nevin et al., 2016; Mbonye et al., 2016) and outside (Peltzer et al., 2011).

Another reported belief was that vaginal fluids accelerate wound healing as also indicated in a study among fishing communities in Uganda (Mbonye et al., 2016). Considering that many men in the general population can easily abide by such a detrimental belief, this could increase their risk of HIV infection after circumcision, instead of reducing it.

The results of the study by Plotkin, (2013) in a Kenyan population indicated fear of loss of capability of having an erection after circumcision as well as having an erection during waiting period as a major barrier for circumcision as reflected by 95% respondents.

According to this study, men fear of penile injury from erections in the immediate post-operative period also emerged as a potential barrier.

A study by Fink (2012) also 'reported worsened erectile function after adult circumcision and, in addition, a degradation of penile sensitivity' (Fink et al., 2012). Majority (87%) of the respondents were in agreement that circumcision diminished sexual pleasure and this would lead them to lose their partner (Fink et al., 2012).

2.4 Summary of Literature Review

MC was practiced at various stages of male life. A review on the MC global prevalence revealed that the majority of the Muslims are circumcised mainly as a religious right. In the modern days, MC has been mainly adopted as a public health intervention. WHO-UNAIDS recommended the adoption of the practice after three land mark studies revealed the efficacy of SMC in reducing the transmission of HIV infection especially among heterosexual contacts. The acceptability of MC as an HIV prevention intervention has faced a scope of challenges and barriers including cultural influences, traditional beliefs and customs, religion and different perceptions about the whole procedure in different communities. The rationalization of the present study derives from the belief that the study will contribute to the true reflection of the factors affecting the uptake of SMC in a male population living in Mukono District, Uganda.

CHAPTER THREE
METHODOLOGY

3.0 Introduction

In this chapter, the description of the research methods is given. It includes study designs, study setting, study population, sample size determination, sampling method, definition of study variables, data collection method and tools, quality control for data, data presentation and analysis, ethical issues, limitation of the study, and plan for dissemination of the study results.

3.1 Study design

This was a cross sectional study design as it is the best suitable design for prevalence studies in which data is collected at one point in time with exposure and outcome being assessed at once within a short period (Dawson and Trapp, 2004). This study was conducted between July and August 2018.

3.2 Sources of data

The study used primary data from the participants by means of researcher administered questionnaires in which the information was derived directly from the respondents. The secondary source of data was from the peer review journals.

3.3 Study setting

Mukono Church of Uganda hospital a non-governmental entrepreneurial sector that is Christian based with a vision of offering holistic healthcare for God's glory. It is located in Mukono municipality in the Central division of Mukono town. The boundaries of Mukono district are as follows: To the West is Goma division, East is Lugazi,to the North is Kyampisi and Naama division, to the South is Nakisongu and Ntengeru division. Its population coverage is about 27,100 people by 2017/2018. The health center is a very important institution that serves as a non-governmental referral health facility for the areas bordering it and it has the following departments: Medicine, surgery, pediatrics, obstetrics &gynecology, dental, laboratory, ophthalmology. Other departments include radiology, accounts, medical records, maintenance, human resource and anaesthesia.

The study area is chosen because it has a high HIV prevalence and a low uptake of safe male circumcision is reported in Mukono community.

3.4 Study population

The study population was male participants aged between 15-49 years attending Mukono Church of Uganda hospital, Mukono District.

3.4.1 Eligibility criteria

3.4.1.1 Inclusion criteria

All male participants of 15-49 years that consented or had assent signed by the parent or guardian and resident at Mukono district for minimally 3 months prior to commencement of the study were included.

3.4.1.2 Exclusion criteria

All consenting/assenting male participants found to be very ill or whose mental status was found to be compromised at the time of the study were excluded.

3.5 Sample size determination

The sample size of the proposed study was determined using Kish and Leslie sample size formula (Kish and Leslie, 1965) as detailed below:

$n = (Z^2_{\alpha}pq)/e^2$

Where by:

n is sample size required, Z_{α} is the Z-value at $\alpha = 0.05$ whose value is 1.96 (from distribution curve).

P = the proportion of circumcised participants expected among the respondents in the study (By convention p =0.5 if the there is no literature about such proportion as it is in this case)

Since p + q =1

Therefore, q =1- p

q = 1- 0.5

q =0.5 for this case

The estimated precision (e) of study which is estimated to be 0.05

Thus; n =(Z2αpq)/e2

n= (1.96*1.96*0.5*0.5)/ (0.05*0.05)

Therefore, by substitution, the sample size n =4*0.5*0.5)/ (0.05*0.05) = 384

n=384

Therefore, a minimum of 384 participants were considered for this study.

3.6. Sampling Techniques

The study used consecutive and purposive sampling methods which are common non probability sampling methods used in Hospital setting. Consecutive enrollment method was used where by the respondents were selected as they were received in the out patients' department at Mukono Church of Uganda hospital. This was done because there was no sampling frame. Men were selected purposively to give information related to the study if they were found eligible.

3.7 Study variables

The dependent variable for the study was uptake of SMC among the male clients attending Mukono Church of Uganda hospital. The independent variables of the study are the factors associated with the uptake of SMC among clients attending Mukono Church of Uganda hospital and these were socio-demographic and personal factors.

3.8 Data collection methods and tools

In this study, quantitative data was collected using a researcher administered questionnaire. A standardized questionnaire containing both closed (structured) and open ended (semi-structured) questions on socio-demographic and personal factors associated with the uptake of SMC among clients attending outpatients' clinic in Mukono Church of Uganda hospital, in Mukono District was developed (refer to appendix II).

The tool was pretested on 30 male clients at Kiwanga COU health facility with is also a nonprofit organization because it has a similar environment with Mukono COU, hospital and also found in Mukono district. This was done to check for applicability, accuracy and consistency of collected data before commencement of study. Using both closed and open ended questions, new issues that would be raised using structured questions were collected in semi-structured questions.

3.9 Quality control for the field data

Quality control measures were put in place to ensure validity and reliability of collected data in the following ways:

The questionnaires were written in English and translated to Luganda which is the local language comprehended by majority of the respondents in Mukono District.

Thirty (30) questionnaires were pretested at Kiwanga COU health facility. Questions that did not yield the desired meaning were edited accordingly before starting the study.

Questionnaires were research administered under supervision by the principal researcher and help from well-trained research assistants working at the health facility.

Before closure, all interview questionnaires were double checked for completeness and approved for storage by the principal investigator.

Questionnaires were kept in safety locker under key and lock and were only be accessed by the principal investigator.

3.10. Data presentation and analysis

Data was cleaned, coded and entered into Microsoft office Excel windows seven. Descriptive statistics (univariate) was carried using graph pad prism software version 7 and presented as frequency tables or graphs. Bivariate analysis was done using Pearson Chi-square tests to determine the relationship between the dependent and independent variables in the study. P-values and their corresponding confidence intervals were calculated. For all statistical tests, P-values less than 0.05 were considered significant.

3.11 Ethical considerations

Permission was sought from the administration of International Health Science University where by a letter of introduction was written to the administration of the study setting. Written informed consent was sought from all study participants before enrollment into the study. For all collected data, confidentiality was maintained by not revealing the participant's identities but using only codes. Data was safely stored in a safety box under lock and key only accessible to the study invigilators.

3.12 Plan for dissemination

Results from the study were presented into a dissertation submitted to International Health Science University and the local administration of Mukono Church of Uganda hospital and to the district official of Mukono District. A manuscript shall be written for submission to a medical journal and presentations to various conferences.

CHAPTER FOUR: PRESENTATION OF RESULTS

4.0 Introduction

This chapter presents the results of the study according to the study objectives. Results are presented in tables and figures and explained in details in the texts. A total of 384 respondents were interviewed during the period of data collection yielding 100% response rate.

4.1 Socio-demographic information of the study population

The study population comprised of 384 respondents with the majority (41.4%) in the age group of 26-35 years, more than half (62.5%) were married and only 3 (0.78%) were widowers. Only 1 in 3 participants had reached up to the secondary level of education; the greater number (41.4%) were of Baganda ethnic tribe and 63 (16.4%) were Basoga. Of the 384 participants, 356 (92.7%) were Christians; only 28 (7.3%) were Muslim. The main occupation of the respondents in this study was self-employment, yet concerning the cultural requirement of circumcision, 342 (89.1%) stated that their culture did not require that they get circumcised and only 42 (10.9%) stated that their culture requires that they get circumcised. Details of socio-demographic information are given in table1 below:

Table 1: Socio-demographic characteristics of the study population

Variable	Frequency (n=384)	Percentage (%)
Age		
15-25 years	124	32.3
26-35 years	159	41.4
36-45 years	61	15.9
46-49 years	40	10.4
Tribe		
Baganda	159	41.4
Basoga	63	16.4
Banyankole	42	10.9
Bagishu	18	4.7
Others	102	26.6
Marital Status		
Single	141	36.7
Married	240	62.5
Widowed	3	0.8
Highest Level of Formal education attained		
Primary	75	19.5
Secondary	129	33.6
Tertiary	100	26.0
Others	59	15.4
No formal education	21	5.5
Occupation		
Formal employment	110	28.7
Self employed	156	40.6
Peasant	44	11.5
Student	58	15.0
Not employed	16	4.2
Religion		
Christian	356	92.7
Moslem	28	7.3
Culture requirement of circumcision		
Yes	42	10.9
No	342	89.1

4.2 Uptake of safe male circumcision among the male clients attending the outpatient clinic at Mukono church of Uganda Hospital

Based on this study, 159 (41.4%) respondents reported to have up taken SMC while 225 (58.6%) had not taken up SMC. These results are summarized in figure 2 below:

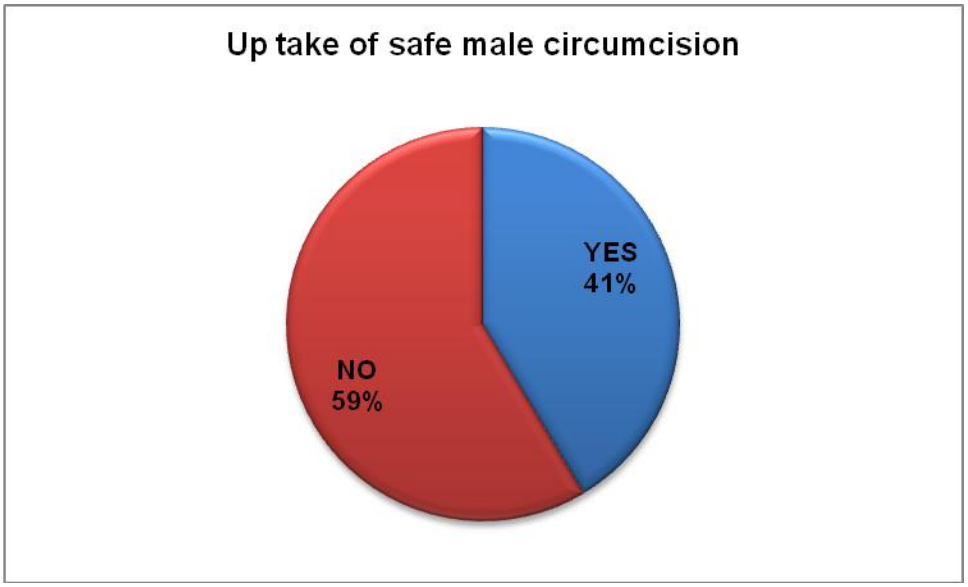

*Figure 2: showing the percentage of the respondents who had undertaken safe male circumcision. *Percentages in the pie chart are rounded off to a single figure.*

4.3 Socio-demographic factors associated with the uptake of SMC among the male clients attending the outpatient clinic at Mukono church of Uganda Hospital

To determine the association between the socio- demographic factors and SMC uptake, a bivariate analysis was carried out. As shown in table 2, age, tribe, level of education, occupation and having a cultural requirement to undertake SMC were the socio-demographic factors associated with uptake of SMC ($p< 0.05$). There was no difference in the uptake of SMC among the different religious categories ($p=0.5752$).

The greater proportion of respondents that reported to have undertaken SMC was in the age group of 15-25 years. Among the Bagisu who are known to be a traditionally circumcising tribe, only 10 (6.3%) reported to have undertaken safe male circumcision. More single (62.9%) than married men (37.1%) reported to have undertaken SMC. Also observably, of the 159 respondents who reported to have undertaken SMC, the greater proportion had attended up to the tertiary level of education (38.4%) and self-employed (35.8%). Details of the bivariate analysis are given in the Table 2 below.

Table 2: Association between the socio-demographic factors and uptake of SMC in the study population

Variable	Uptake of Safe Male Circumcision		χ^2	df	P – Value
	Yes (%) (n=159)	**No (%) (n = 225)**			
Age					
15-25 years	88 (55.3%)	36 (16%)	71.3	3	0.0001*
26-35 years	36 (22.7%)	123 (54.7%)			
36-45 years	18 (11.3%)	43 (19.1%)			
46-49 years	17 (10.7%)	23 (10.2%)			
Tribe					
Baganda	61 (38.4%)	98 (43.6%)	13.7	4	0.0084*
Basoga	16 (10.1%)	47 (20.9%)			
Banyankole	23 (14.5%)	19 (8.4%)			
Bagisu	10 (6.3%)	8 (3.6%)			
Others	49 (30.8%)	53 (23.6%)			
Marital status					
Single	100 (62.9%)	41 (18.2%)	ND	NA	
Married	59 (37.1%)	181 (80.5%)			-
Widowed	0 (0%)	3 (1.3%)			
Education level					
Primary					
Secondary	23 (14.5%)	52 (23.1%)	26.3	4	0.0001*
Tertiary	50 (31.4%)	79 (35.1%)			
Others	61 (38.4%)	39 (17.3%)			
No formal Education	15 (9.4%)	44 (19.6%)			
	10 (6.3%)	11 (4.9%)			
Occupation					
Formal	33 (20.8%)	77 (34.2%)	43.3	4	0.0001*
Self employed	57 (35.8%)	99 (44.0%)			
Peasant	14 (8.8%)	30 (13.3%)			
Student	45 (28.3%)	13 (5.8%)			
Non- employed	10 (6.3%)	6 (2.7%)			
Religion					
Christians	146 (91.8%)	210 (93.3%)	0.3	1	0.5752
Moslems	13 (8.2%)	15 (6.7%)			
Cultural requirement					
Yes	30(18.9%)	12(5.3%)	23.4	1	0.0001*
No	129(81.1%)	213(94.7%)			

**where there are significant associations between dependent and independent variables*

Chi-square for marital status ND-not done for cells less than 5

4.4 Personal factors and uptake of Safe Male Circumcision among male clients attending outpatient's clinic at Mukono Church of Uganda Hospital.

Respondents were asked questions regarding uptake of safe male circumcision and the details of the study findings are given in the 3 below.

Table 3: Personal factors regarding the uptake of Safe Male Circumcision among male clients attending outpatient's clinic at Mukono Church of Uganda Hospital (n=384)

Personal factors		***Frequency***	***Percentage (%)***
Awareness about Safe male circumcision	Yes	279	72.7
	No	105	27.3
Source of information about safe male circumcision	Parent/relative	30	7.9
	Teacher	17	4.4
	Clinic/ health worker	158	41.1
	Religious leaders	40	10.4
	Educational program-TV	37	9.6
	News paper	34	8.9
	Friends	68	17.7
Where you influenced into circumcision?(n=204)	Yes	200	98.0
	No	4	2.0
Source of influence	Parental	74	36.3
	Spouse	29	14.2
	Peer	81	39.7
	Self	20	9.8
Reason for circumcision(n=204)	Health/ hygiene	73	35.8
	Sexual satisfaction	22	10.8
	Protection from STI/HIV	36	17.6
	Traditional/cultural valves	45	22.1
	Religious beliefs	28	13.7
Reason for non-circumcision(n=180)	Fear of pain	71	39.4
	Fear of delayed wound healing	42	23.3
	Fear to hurt my wife/ girlfriend preference to uncircumcised penis	13	7.2
	Fear to go against my traditional beliefs	19	10.6
	Reduction of sexual pleasure	10	5.6
	Fear of costs involved	5	2.8
	Others	20	11.1
Distance to the nearest health centre	<5KM	206	53.6
	>5KM	178	46.4
Opinion about male circumcision	Very good	97	25.3
	Good	200	52.0
	Poor	87	22.7

As shown in table 3 above, 279 (72.7%) of the respondents had ever heard about safe male circumcision while 105 (27.3%) had not heard of safe male circumcision. Out of the 384 participants, over half (53.6%) said that the distance to their nearest health centre was less

than 5kilometres. The main reason for getting circumcised was for health/hygiene purposes 73 (35.8%); only 45 (22.1%) were circumcised because of their traditional/cultural beliefs. Other reasons for getting circumcised included the belief of being protected from STIs/HIV (17.6%), religious reasons (13.7%) and sexual satisfaction (10.8%).

The majority of respondents who reported to having been circumcised (98.04%) were influenced and just 4 of them (1.96%) were self-motivated. The greater number was influenced by peers (39.7%) and parents (36.3%).

A number of barriers to uptake of safe male circumcision were cited; but pain was stated by the majority of the respondents (39.4%) as the major barrier and only 5 (2.8%) mentioned the fear of costs involved. A breakdown of those barriers is also included in table 3 above.

4.5 Personal factors associated with the uptake of SMC

To determine the association between the personal factors and SMC uptake, bivariate analysis was carried out and the results are shown in table 4 below.

Table 4: Association between the personal factors and uptake of SMC in the study population

Variable		**SMC uptake (n=384)**		χ^2	**df**	**P- Value**
		Yes (n=159)	No (n=225)			
Awareness about SMC	Yes	100(62.9%)	179(79.6%)			
	No	59(37.1%)	46(20.4%)	20	1	0.0001*
Opinion about circumcision	Very good	47(29.6%)	50(22.2%)			
	Good	50(31.4%)	150(66.7%	56.1	2	0.0001*
	Poor	62(39.0%)	25(11.1%)			
Distance	<5km	91(57.2%)	115(51.1%)			
	≥5km	68(42.8%)	110(48.9%)	1.4	1	0.2361

**where there are significant associations between dependent and independent variables*

As shown in table 4 above, having awareness about SMC and the perception about SMC were the personal factors that significantly influenced SMC uptake among the male clients ($P<0.05$); while distance to health facility had no influence on SMC uptake ($P=0.236$). Among those who reported to have undertaken SMC, the greater number (62.9%) had awareness about SMC. It is interesting to note though that the greater number who reported have been circumcised medically had a very poor opinion regarding SMC as shown in results included in the table 4 above.

CHAPTER FIVE: DISCUSSION

This chapter contains the discussion of the findings of the study and is arranged in the order of the three research questions that the study sought to answer.

5.1 Prevalence of uptake of safe male circumcision among male clients attending outpatient's clinic at Mukono Church of Uganda hospital.

In this study, less than half of the respondents (41.4%) reported to have been circumcised medically. Despite massive campaigns by the Uganda Ministry of Health to achieve a target of 80% circumcised males in the age of 15-49 years, the current study indicates that uptake of safe male circumcision among the male clients receiving care in Mukono church of Uganda hospital is below the national target. Mukono district is a heterogeneous community of people with diverse cultural and traditional beliefs that would likely influence their perception and acceptance of uptake of SMC. Also observably, is that majority of the study respondents reported to be aware of SMC but possibly, the understanding of the benefits of SMC was unknown to many and could explain the non-uptake of safe male circumcision by the greater number of the study respondents.

In 2014, the Uganda Aids Commission reported the national SMC prevalence in Uganda of about 40% (UAC, 2014), which is almost similar to the prevalence of SMC uptake reported in the present study. In the context of the present findings, the current prevalence when compared to the national average that was reported 4 years ago reflects stagnation in the uptake of SMC. This calls for more rigorous approaches by Mukono district authorities to sensitize communities including schools about the importance of SMC. This can be done through community mobilization through village health teams, radio talk shows and organized school visits to educate pupils and students about this important subject.

Observably, the prevalence of SMC uptake reported in the current study seems to be a little higher as compared to the prevalence of 34% that was reported by TASO in a study that was done in Masaka district (UNAIDS,2015; Uganda narrative report). This is probably because Mukono being urban and nearer to Kampala city where many people come seeking for better infrastructures like Jobs, medical care, education opportunities, there is slightly better access

to programs for sensitization about the provision of circumcision services at the health facilities around Mukono.

However, when the current study is compared to results from other communities of Africa, the uptake of circumcision in the Mukono community is much lower compared to the prevalence of SMC that was reported in the neighboring communities of Kenya of 91% and Tanzania (70%); while higher than that reported in the communities of Swaziland (8%), Zimbabwe (10%), Botswana (11%), Malawi (12%), Zambia (13%), Burundi and Rwanda (15%), Namibia (21%) and South Africa (21%) [WHO, 2013]. Numerous factors could explain variations in uptake of safe male circumcision in the different communities among which could be the extent of community sensitization on uptake of safe male circumcision, availability of health facilities and human resource to carry out safe male circumcision, the strong influence by religion, as well as the cultural and traditional beliefs. Above all, mass sensitization about the benefits of SMC is warranted to improve community knowledge and thus increased uptake of SMC.

5.2 Socio-demographic factors affecting the uptake of Safe Male Circumcision at the study population

In this study, uptake of safe male circumcision among the male clients was significantly influenced by age, tribe, and level of education, occupation and having a cultural requirement to undertake SMC. Majority of the males who had undertaken SMC were youth under 25 years. This could be because the youth are easily influenced by their peers and would not likely feel stigmatized upon acceptance of SMC uptake as would be the adults. The current findings are in line with results from another study that was done in Kampala and Kayunga districts which reported greater uptake of SMC among younger adults mainly due to peer influence. This is because some young men would feel more accepted, respected and would enjoy the company and support of their peers if they were circumcised (USAID, 2013). Other studies done in Zambia and elsewhere also confirm the significant impact of peer involvement in increasing uptake of SMC among the youth youth (Arlanna et al., 2016; Herman-Roloff et al., 2011). The probable explanation for this similarity is that peers usually share a lot of information using platforms like social media networking and in so doing exchange a lot of ideas and encouragements for these ideas like SMC. In the process of identifying with the members of the group one may be obliged for instance to take up SMC.
The present results also compare with those of a study done by Hankins (2016) in which the

greater proportion of medically circumcised males in Uganda was those below 35 years of age (Hankins et al, .2016). In other studies, older men felt like they had passed the age for circumcision and they did not see any need to uptake while some were not willing to be circumcised because they thought they were "okay" the way they were (Pappas- DeLuca et al., 2009). Others feel shamed upon seeking services at an older age together with younger boys or the fear that their partners would engage in sexual infidelity while they are healing (Plotkin et al., 2013). The present findings suggest SMC programs would realize more success if they targeted males at a younger age as acceptance is likely greater among the younger ones.

Regarding the level of education, various studies show that the level of education increases awareness about circumcision as it plays a vital role in risk reduction of HIV/AIDS and other STIs ; thus sufficient knowledge may bring about long lasting behavior change (Lau et al., 2015)**.** This is in line with the current study in which the greater proportion of circumcised males had attended up to the tertiary level of education. It is common knowledge that the reading behavior and quest for knowledge increases as one's educational level increases. The practice of reading increases diversity in awareness about different aspects of life. This agrees with previous studies in Uganda which found out that a bigger proportion of circumcised men were associated with higher level of education (Mbusa and Nkala, 2014). The results of the study by Mbusa and others also indicated that a lack of in-depth knowledge about the benefits and limitations of MMC and without knowledge people are reluctant and skeptical about it (Mbusa and Nkala, 2014). One's level of education may also have an influence on their perception towards different things including male circumcision as reported in a study that was carried out in Zimbabwe by Etitya (2014). According to this study, the general impression was that more educated men are more likely to be aware of the benefits of male circumcision such as having reduced risk of HIV and other infections.

In this study, more single than married men reported to have undertaken SMC. Having fewer married men undertaking SMC reflects minimal spousal support of circumcision. Some fear that their spouses would engage in other sexual relationships while they are healing, while in some studies, the fear of loss of sexual urge when one is circumcised explained the non-uptake of SMC by some men(USAID, 2013). The findings of this study reflect the need of sensitization not only for males alone but both sexual partners about the benefits of SMC, as the fear of marital dissolution seems to have an impact on uptake of SMC by males and

cannot be ignored.

The observation regarding the influence of marital status is however not consistent with the results of Uganda Demographic and Health Survey (2010) in which a slight difference in uptake of SMC among the married and single men was seen. The difference in the study findings could be explained by variations in beliefs about Safe Male Circumcision since the studies were carried out in different ethnic populations. In some societies, it is believed that male circumcision is a developmental milestone for a man and also perceived to protect one from sexual diseases (Lau et al., 2015). Such perceptions may impact one's level of acceptance of SMC uptake.

There was a higher proportion of circumcised males who were self-employed than those in other forms of employment. This could be because of the greater flexibility of staying away from work that self-employment normally gives without the fear of one losing their job; unlike in formal employment. This is also in line with some of the studies in which participants expressed the fear of staying away from work, especially if the man is the sole provider for the family (Herman-rollof et al., 2011). The current findings however contradict the report of a cross sectional study done among the Luo community of Nyanza province, Kenya in which respondents who were unemployed had the highest uptake of SMC (Saye, 2015). Considering that the Luo are traditionally a non-circumcising tribe and that being uncircumcised is regarded as an identity for the Luo culture (Bailey et al., (2012), the differences in the study findings are hard to explain. Although on the other hand, it may be logical that if one is not unemployed, they would likely have the time offered to undergo SMC and wound healing. Other studies however are needed to confirm this association.

As far as culture is concerned, majority (89.1%) noted that their culture requirement does not support safe male circumcision. It is apparent that of the mix of the various cultures within Mukono district, there are more of those whose cultures probably do not support SMC as opposed to those which support. Being uncircumcised is regarded as an identity among non-circumcising culture. This was perceived as a cultural barrier to acceptability of male circumcision. This implies that the majority of cultures of the males in Mukono district were more likely make majority of the males to reject the procedure as it was against their culture/tradition. These results also concur with the results of Macintyre et al (2013) which showed the majority males amongst the Turkana of Kenya and Bahima of Uganda do not

practice circumcision. Older men are the keepers of culture; they are expected to uphold Turkana tradition and they keep to it. Therefore, there is need for stake holders like the district health team in collaboration with traditional leaders to harmonize on the beliefs about circumcision.

Although notably is that the least number of males who reported to had undertaken SMC were of the traditionally circumcising Bagisu tribe. This could be explained by the fact that as part of tradition, the Bagisu circumcise their males during their cultural ceremonies. It is thus unlikely that many would seek for medical circumcision since they undergo this procedure as part of their tradition. This means that programs for SMC implementation need to embrace cultural differences and include traditional leaders in the planning and community sensitization about SMC programs. That may improve acceptance of uptake especially in communities were cultural influences are very strong.

There was no statistically significant relationship between the religion and uptake of male circumcision. This is probably that many Muslims are circumcised culturally and at child hood.

Result from the present study suggest the need of Mukono District Authorities like LCV, DHOs and DEOs should collaborate with religious and cultural leaders in organizing sensitization campaigns in churches, Mosques, schools and in ceremonies like weddings to sensitize masses about the relevance of SMC.

5.3 Individual factors affecting the uptake of Safe Male Circumcision among male clients attending outpatient's clinic at Mukono Church of Uganda hospital.

Individual factors that significantly impacted on the uptake of SMC in the study population were having awareness about SMC and the perception about SMC; however, distance to health facility had no influence on SMC uptake. Among those who reported to have undertaken SMC, the greater proportion had awareness about SMC. This may be attributed to an increase in educational campaigns about HIV prevention strategies in Mukono district and from the right sources as majority of the respondents (41.1%) reported to have obtained information about SMC programs from health workers/clinic. This means that with rigorous increase in health awareness programs, the uptake of SMC in Mukono community would be increased.

The present results are comparable to the findings of a study that was carried out in Zimbabwe in which a good number of participants had knowledge of the benefits of SMC (Chiringa et al., 2016); although not consistent with results of the study conducted in Nairobi among the Luo people of Kenya in which participants were less knowledgeable about male circumcision (Tarimo et al., 2012). This may explain the differences in the level of acceptance of SMC among the different communities. Therefore, there is need to raise awareness about SMC as an HIV prevention strategy even in communities whose traditions may not be accepting of SMC. This is because it is believed that sufficient knowledge may facilitate positive attitude towards male circumcision.

Whereas majority of the study participants had a very good opinion about SMC, it is interesting to note though that the greater number who reported have been circumcised medically had a very poor opinion regarding SMC. A probable explanation to this finding is that it is possible for one to have a poor opinion about SMC, yet understand the benefits of undertaking SMC. On the other had those who had a good opinion about SMC may not have undertaken it for personal reasons. As observed in this study, a number of reasons for non-uptake of SMC were cited including the fear of pain, fear of delayed wound healing ear of delayed wound healing, wife/girlfriend preference of uncircumcised penis, fear of going against traditional beliefs, the fright that SMC would reduce sexual pleasure, as well as the and fear of costs that may be involved. This is in line with several studies which highlighted the fear of pain, loss of sexual desire, bleeding, additional costs of undertaking the procedure and possible cultural tradition as some of the barriers to male circumcision acceptability (Chiringa et al., 2016; Scolnic et al.,2014; USAID, 2013; Wamai et al., 2011; Obure et al., 2009). This means that there is a need for male circumcision implementers to educate men about the benefits associated with procedure. Local district authorities including LCV Chairmen, DHO, DEO of Mukono district should collaborate with other relevant stake holders at grass root levels like village Health teams (VHTs) to further increase awareness through various educational programs which in the long run will further enhance attitude and probably uptake of SMC.

Also, health care workers performing SMC need to have detailed pre and post counselling, encourage people from previous male circumcision to have a talk with them before the procedure is done, to make the information on male circumcision and other HIV prevention methods available to the people of Mukono so as to increase awareness on the benefits of

male circumcision in implementing HIV acquisition and transmission.

By utilizing men who have undergone circumcision in promoting uptake among individuals in their social networks since one's peers may have on health behaviors, strategies that specifically encourage circumcision clients to share their experiences among their peers have the potential to be effective in increasing male circumcision uptake.

Additionally, key local leaders such as traditional and religious leaders from different ethnic groups might be helpful in providing support for an approach that takes into account local beliefs about circumcision.

On the other hand, distance from the health facility had no influence of SMC uptake. This is probably because individuals will always seek medical care no matter the distance since they could have understood the benefits of the service given.

5.4 Study limitations

There were some limitations to the study which include;

1. The area of study being small is not generalizable to the national picture of SMC prevalence.

2 The information given may be biased since one has to rely on self-reported information and hence difficult to validate.

CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

6.0 Introduction

This chapter presents the conclusions and recommendations of the study based on the objectives.

6.1 Conclusions

Based on the objectives of the study, it can be concluded that:

The prevalence of safe male circumcision among male clients between 15-49 years attending Mukono Church of Uganda Hospital was 41.4%.

The Socio demographic factors that were significantly associated with the uptake of SMC among males aged 15-49 years attending Mukono Church of Uganda Hospital were age, tribe, and marital status, level of education, occupation and cultural requirements.

The personal factors that were significantly associated with the uptake of SMC among males aged 15-49 years attending Mukono Church of Uganda Hospital were awareness about SMC and opinion about SMC.

6.2 Recommendations

According to the study findings, it is recommended that:

1. Local district authorities including LCV Chairmen, DHO and the DEO of Mukono district should collaborate with other relevant stake holders at grass root levels like HCWs, and village Health teams to increase awareness through various educational programs which in the long run will further enhance attitude and probably uptake of SMC.
2. Intensive health education campaigns on the benefits of male circumcision, inclusion in the curricula, and a multi sectoral approach with community leaders and private sector to improve acceptability are required. In this approach, women need to be included in the health education talks about the benefits of SMC since these have an upper hand in influencing their partner's decisions regarding the uptake of SMC services.
3. HCWs at SMC clinics should employ men who have undergone circumcision in promoting uptake among individuals in their social networks since one's peers may have on health behaviors, strategies that specifically encourage circumcision clients to

share their experiences among their peers have the potential to be effective in increasing male circumcision acceptability and uptake.

6.3 Future studies

Larger surveys involving different communities of Uganda are needed to understand barriers of uptake of SMC in the various communities.

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APPENDICES

APPENDIX 1: PARTICIPANT CONSENT FORM

Dear respondent, I am Amulen Hellen Nyaripo, a student of International Health Science University Namuwongo pursuing a Bachelor's degree in Nursing (BNS). As one of the requirements a project is supposed to be carried out in the fulfilment for a ward of a Bachelor's degree in Nursing.

You are therefore invited to take part in this project entitled, **'Factors associated with uptake of safe male circumcision among male clients aged 15-49 years attending outpatient's clinic at Mukono Church of Uganda, Mukono District.'**

The information you provide will be treated with utmost confidentiality and strictly used for purposes of research only.

Your cooperation and participation will be highly appreciated.

CONSENT FORM

Dear respondent, I am Amulen Hellen Nyaripo a student of International Health Sciences University here to conduct a research entitled: "Factors associated with uptake of safe male circumcision among male clients aged 15-49 years attending outpatient's clinic at Mukono Church of Uganda, Mukono District".

Purpose of the study: To determine Factors associated with uptake of safe male circumcision among male clients aged 15-49 years attending outpatients' clinic in Mukono Church of Uganda, Mukono District

Procedure: you have been selected purposively as a participant and you will be interviewed as a participant for the study which will last for about 15minutes.

Benefit: There is no monetary benefit that you will get for participating in this study. However, this study will help determine factors associated with uptake of safe male circumcision among male persons in Mukono district. It is hoped that addressing these factors by the district authorities and all the other stake holders will enhance increased uptake of safe male circumcision among young male persons with the aim of consequently reducing the high HIV prevalence in Mukono District.

Contact: In case of any ethical problems or questions pertaining this study, please contact the principal investigator at International Health Science University Namuwongo at e-mail,h.amulen@student.ac.ug on mobile number 0703469400/0788706313.

Risks: There is no significant risk expected by being involved in this study.

Confidentiality: All information will be kept confidential and all questionnaire and related information will be kept in a locked cupboard and under password entry in the computer so that only people with explicit consent will have access to this information.
When the research report is published, your information will still not be disclosed but codes will be used instead of sensitive issues like your names and personal identifiers.
Involvement in the study: It is voluntary to join the study but you can withdraw from the study any time in case you change your mind during the course of the study without any penalty.

Statement of consent: I have been informed about the study and made aware that the investigator will ask questions about Factors associated with uptake of safe male circumcision among male clients aged 15-49 years attending outpatient's clinic at Mukono Church of Uganda, Mukono District, 2018. I understand that taking part in the study is voluntary and I can withdraw consent at any time without any penalty. I hereby give my consent to participant in the study.
Signature of the participant……date……..
Or Thumbprint……..date……
Interviewer……Signature…….
Date……..……Telephone number……..

ASSENT
I understand that making my son to take part in this study has been explained to me thoroughly well and I agree that he can be involved.

Signature of the participant……date…….
Interviewer……Signature…….
Date……Telephone number……..

APPENDIX II: QUESTIONNAIRE

Title: **Factors associated with uptake of safe male circumcision among male clients aged 15-49 years attending outpatient's clinic at Mukono Church of Uganda hospital, Mukono District from June-July, 2018.**

Participant's initials……

Tick the one that applies.

Section A

Socio demographic factors

1. What is your age (in years)?

a) 15-25
b) 26-35
c) 36-45
d) 46-49

2. Who are you by tribe?

a) Baganda
b) Basoga
c) Banyakole
d) Bagishu
e) Others

3.What is your marital status?

a) Single
b) Married
c) Widowed
d) Divorced

4. What is your highest level of formal education attained?

a) Primary
b) Secondary
c) Tertiary
d) Others ……

5. What is your occupation?

a) Formal employment

b) Self employed

c) Peasant

d) Student

e) Not employed

6. What is your Religion?

a) Christians

d) Muslims

e) Traditionalists

6. Does your culture require males to be circumcised?

a) Yes

b) No

7. Have you ever heard of Safe male circumcision?

a) Yes

b) No

8) Where did you get information about Safe male circumcision? Tick all that applies

a) Parent/ relative

b) Teacher

c) Clinic/ health worker

d) Religious leaders

e) Educational programs from TV

f) Newspapers/ books

g) Friends

h) Others (specify)……

Section B

Uptake of Safe Male Circumcision

9. Are the services for safe male circumcision readily available in the nearby healthcare facilities to your home?

a) Yes

b) No

c) I don't know

10. Have you ever undergone safe male circumcision?

a) Yes

b) No

11. I f yes, at what age were you circumcised?

a) Infancy/ child less than 13 years

b) Youth/ adolescent from 13-19 years

c) Adult 20 + years

12. If circumcised, was the circumcision done medically or culturally?

a) medically

b) culturally

Section C: Personal factors

13. What was the main reason for you to get circumcised? Tick all that applies

a) Health/ hygiene

b) Sexual satisfaction

c) Protection from STIs/ HIV

d) Traditional/ cultural values

e) Religious beliefs

f) Others (specify)……

14. Where you influenced to take up safe male circumcision?

a) Yes

b) No

15.Who influenced you to take up safe male circumcision?

a) Parental influence

b) Spouse influence

c) Peer influence

d) Others

16.What is the distance from your home to the health centre?

a) Less than 5km

b) More than 5km

17. If not circumcised in your view, which fears do you think is the main barriers of safe male circumcision? Tick all that applies.

a) Fear of pain
b) Fear of delayed wound healing
c) Fear to hurt my wife's/girlfriend's preference to un circumcised penis
d) Fear to go against my traditional beliefs
e) Reduction of sexual pleasure
f) Fear of costs involved
g) Others……

18.What is your opinion about safe male circumcision?

a) Very good
b) Good
c) Poor

Thank you so much for your time and Participation

END

APPENDIX V: INTRODUCTORY AND CORRESPONDENCE LETTER

IHSU INTERNATIONAL HEALTH SCIENCES UNIVERSITY
sanitas per scientiam

making a difference in health care

Office of the Dear, School of Nursing

Kampala, 11th July 2018

TO MUKONO CHURCH OF UGANDA HOSPITAL MUKONO DISTRICT.

Granted for a period of 5 weeks!

MUKONO CO.U HOSPITAL
12 JUL 2018
MUKONO DIOCESE
MEDICAL SUPERINTENDENT

Dear Sir/Madam,

RE: ASSISTANCE FOR RESEARCH

Greetings from International Health Sciences University.

This is to introduce to you **Amulen Hellen Nyaripo** Reg. No. **2015-BNS-TU-024** who is a student of our University. As part of the requirements for the award of a Bachelors degree in Nursing of our University, the student is required to carry out research.

The topic of research is: **Factors Associated with Uptake of Safe male circumcision among male clients aged 15-49 Years attending Out Patient Clinic in Mukono Church of Uganda Hospital.**

This therefore is to kindly request you to render the student assistance as may be necessary for the research.

I, and indeed the entire University are grateful in advance for all assistance that will be accorded to our student.

Sincerely Yours,

IHSU INTERNATIONAL HEALTH SCIENCES UNIVERSITY
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