FACTORS INFLUENCING UPTAKE OF VOLUNTARY MEDICAL MALE CIRCUMCISION AMONGST MALES ABOVE THE AGE OF 15 YEARS UP TO 49 YEARS IN PURONGO SUB COUNTY, NWOYA DISTRICT

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DECLARATION

I **EMOIT JOHN BOSCO** hereby declare, to the best of my understanding 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 **EMOIT JOHN BOSCO,** a student who is pursuing a Bachelor's degree in Nursing Science has worked upon this research report under my supervision.

Signature…… Date…….……..

MRS. LWANIRA CATHERINE. N

SUPERVISOR

DEDICATION

I dedicate this research to my beloved parents for their tireless efforts and advice throughout my study period.

ACKNOWLEDGEMENT

I give glory to the Almighty God for this far that he has brought me, Lord, honestly without you I could do nothing as far as this work is concerned, am forever grateful to you. I am deeply indebted to those whose lives surround mine and have given substance to the ideas in this research report.

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OPERATIONAL DEFINITIONS

Culture: This is the way of life of a people. In this study it basically referred to the traditional practices and beliefs of the Luo community.

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

Medical 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: This has been used to mean the acceptability of male circumcision by the adult Luo men as an additional 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.

ACRONYNS

AIDS	Acquired Immunodeficiency Syndrome
BSC	Bachelor of Science
GUD	Genital Ulcer Disease
HIV	Human Immunodeficiency Virus
ILO	International Labour Organization
MC	Male circumcision
MMC	Medical Male Circumcision
KAIS	Kenya AIDS indicator survey
BMA	British Medical Association
MOH	Ministry of health
NSP	National Strategic plan
RCT	Randomized clinical trials
SMC	Safe male circumcision
UAIS	Uganda AIDs indicator survey
STIs	Sexual Transmitted Infections
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 the northern Ugandan district of Nwoya district is very 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 Voluntary Medical Male Circumcision amongst males above age of 15 years in Purongo sub-county, Nwoya district.

Methods: This was a cross sectional study that was carried out in 380 males aged 15 years and above in Purongo Sub County, Nwoya District. Data on uptake of voluntary medical male circumcision and factors associated with its uptake was collected using semi-administered questionnaire and key informant interviews. Data analysis was performed using SPSS Ver 20.0 soft ware and Pearson chi square tests were used to assess the relationship between the socio demographic factors 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, 138 (36.30%) of the respondents reported to have been voluntarily circumcised medically. All the socio demographic factors had a statistically significant relationship with uptake of voluntary medical male circumcision ($P < 0.05$). Only occupation of the respondent didn't reflect a statistically significant relationship with uptake of male circumcision ($P = 0.32$). Awareness about safe circumcision, willingness to get circumcised, pains and the belief that circumcision reduces sexual pleasure were the individual factors that significantly affected the uptake of voluntary medical male circumcision in Purongo sub-county, Nwoya district ($P < 0.05$).

Conclusions and recommendations: The uptake of male circumcision was low, thus the district health team should carry out mass sensitization campaigns to improve knowledge and change attitudes in order to scale up safe male circumcision services in the area as a way of reducing HIV infections.

CHAPTER ONE: INTRODUCTION

1.0 Introduction

In this study, the factors influencing the uptake of voluntary medical male circumcision among males above 15 years of age in Nwoya district were determined. This chapter includes the background to the study, problem statement, the significance of the study, objectives of the study, research questions and the conceptual framework.

1.1Background of the study

Male Circumcision (MC) is the procedure of removing of part or the whole foreskin of the penis for health, cultural or religious reasons. (Centres for Disease Control and Prevention CDC, 2014). It is an old practice that has been conducted by a lot of societies the world over as an act of cleansing the male to ensure better physical and spiritual health. However, regardless of religious affiliations, circumcision is suggested and widely accepted as a medical intervention for children and adults who suffer from disorders of prepuce such asphimosis, paraphimosis, balanoposthistis and Urinary tract infections (UTIs). (WHO, 2014)

Globally, it's estimated that approximately 30% of the world's male population aged 10 years and above is circumcised with 69% of the circumcised men being Muslims residing mainly in Asia, the Middle East and North Africa, 0.8% are Jewish and 13% are non-Muslim and non-Jewish men living in the USA (Morris, et al. 2016).

In Africa, especially in Northern and Western regions, MC is almost universal. However, it is less common in Southern Africa where the prevalence is around 15% in Botswana, Namibia, Swaziland, Zambia and Zimbabwe (World Health Organisation (WHO), 2014).
The report further revealed the prevalence of 21% in Malawi, 35% in South Africa, 48% in Lesotho, 20% in Mozambique and more than 80% in Angola and Madagascar. Further, the same report also shows the prevalence of uptake of MC in East and Central Africa as varying from almost 15% in Burundi and Rwanda to 70% in Tanzania and 84% in Kenya and 93% in Ethiopia (WHO, 2014).

In Uganda, the prevalence of voluntary medical male circumcision is at 27% while the prevalence of circumcised males in Nwoya district is still unknown especially among men whose culture and religion is not in support of male circumcision (Kibira, et al, 2015).

Ssengooba, et al. 2010 – 2020 recognizes voluntary medical male circumcision as a cost-effective HIV prevention intervention. It also acknowledges that it is not 100 percent effective in preventing new HIV infections. Rolling out voluntary medical male circumcision (VMMC) to a full scale would require a simplified disseminated national policy, an expanded infrastructure, human resource capacity and a strategic communication framework to ensure safe delivery of the intervention country wide.

As HIV epidemic persists and poses challenges to public health goals, Uganda as a country needs dedicated policies and actions to further strengthen the HIV prevention efforts. Thus, for national programs, the prime focus should remain on identifying and promoting interventions that can effectively prevent new infections and thereby controlling the HIV epidemic. Accordingly, Voluntary Medical Male Circumcision (VMMC) was seen to reduce the chances of contracting HIV through vaginal intercourse (WHO, 2012).

In 2007, WHO and UNAIDS issued recommendations on medical male circumcision as an additional HIV prevention strategy based on strong and consistent scientific evidence. In the three Randomized Controlled Trials (RCT) conducted in the African region, Male Circumcision (MC) was seen to reduce chances of contracting HIV through vaginal intercourse by 60% in South Africa, 53% in Kenya and by 51% in Uganda. It provides partial protection and is one element of the comprehensive HIV prevention package.

However, in Uganda the context of male circumcision is strongly associated with specific religions and little is known about other dimensions of this practice at the community level, more particularly in Nwoya district, the sensitivities attached to this practice, and its acceptance as a potential method of HIV infection prevention (Westercamp & Bailey, 2007). It is against this background, that this study assessed the factors affecting the uptake of voluntary medical male circumcision amongst males aged 15 years and above in Purongo Sub County in Nwoya district.

1.2 Problem statement

Safe male circumcision is believed to be associated with reduced HIV prevalence. If well embraced and adopted widely, Safe Male Circumcision (SMC) can reduce new HIV infections by 60% (Gray RH, Kigozi G, Serwadda D, 2007). Previously the ministry of health had put in place many other strategies to curb down the HIV spread that included the abstinence only prevention strategy, use of condoms, treatment using antiretroviral drugs among others (UNAIDS, 2007). Later, VMMC was introduced as one of the ways to reduce new HIV infections in Uganda and other countries Siegfried N. et al, (2009). 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).

In order to support implementation of VMMC services and contribute to the achievement of the target, USAID/SUSTAIN devised two approaches: 1) ensuring VMMC services are routinely available within hospitals and 2) that VMMC services are made available to communities through targeted outreaches and circumcision camps.

Despite the strong evidence between HIV prevention and male circumcision coupled with massive sensitization and provision of VMMC services at the community level, the prevalence of circumcised males in Nwoya district is still lower than that of the national average (UAIS, 2011). Consequently, the prevalence of HIV has been reported to steadily increase in developing countries including Uganda; more particularly, in Nwoya district where the HIV prevalence is found to be higher than the National HIV prevalence (7.3%) by 3.7% (MoH Uganda, HMIS, 2017). Other than culture, the factors affecting uptake of voluntary male medical circumcision (VMMC) services in the district are still unknown. Therefore it was against this background that the study sought to investigate the factors influencing uptake of voluntary medical male circumcision amongst males above age of 15 years upto 49 years in Nwoya district as recommended by the national coverage programme. Those below 18 years shall be assented by their parents or guardians

1.3 Objectives of the study

1.3.1General objective

To investigate the factors influencing the uptake of Voluntary Medical Male Circumcision amongst males above age of 15 years upto 49 years in Purongo sub-county, Nwoya district.

1.3.2 Specific objectives

The study was guided by the following specific objectives:

i) To determine prevalence of uptake of voluntary medical male circumcision uptake amongst males above age of 15 years in Purongo sub-county, Nwoya district
ii) To determine the socio-demographic factors affecting the uptake of voluntary medical male circumcision amongst males above age of 15 years in Purongo sub-county, Nwoya district
iii) To establish the personal factors affecting the uptake of voluntary medical male circumcision amongst males above age of 15 years in Purongo sub-county, Nwoya district.

1.4 Research questions

i) What is the prevalence of uptake of voluntary medical male circumcision uptake amongst males above age of 15 years upto 49 years in Purongo sub-county, Nwoya district?
ii) What are the socio-demographic factors affecting the uptake of voluntary medical male circumcision amongst males above age of 15 years upto 49 years in Purongo sub-county, Nwoya district?
iii) What are the personal factors influencing the uptake of voluntary medical male circumcision amongst males above age of 15 years upto 49 years in Purongo sub-county, Nwoya district?

1.5 Significance of the study

There is compelling evidence that safe male circumcision can reduce the risk of heterosexual HIV transmissions by 60 % (WHO/UNAIDS, 2013). 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 VMMC uptake, which may be utilized in guiding strategies for improving the uptake VMMC. 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. The study findings can also be used to influence policies. It is one of the academic

requirements to attain a degree in nursing at International Health Sciences University, Uganda.

Additionally, the research findings will contribute to the existing body of knowledge and provoke further research on the subject.

1.6 Conceptual framework

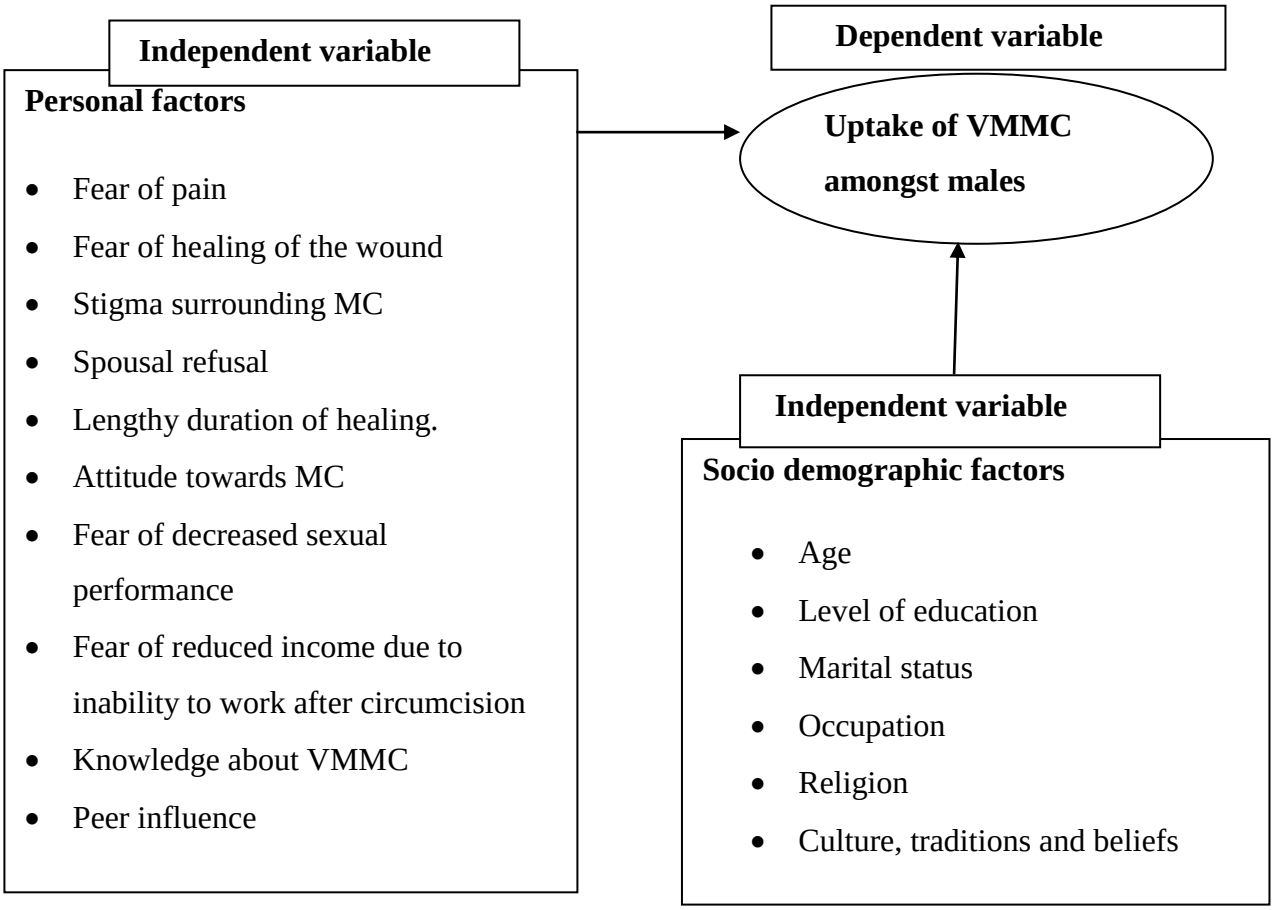


Figure 1: Conceptual framework

Description of the conceptual frame work

The dependent variable was uptake of safe male circumcision. Independent variables included social demographic factors such as age, religion, marital status among others and personal factors. Personal factors included factors that relate to the individual and would affect their thought about uptake of SMC. These included fear of pain, fear of healing of the wound, stigma surrounding MC, spousal refusal, lengthy duration of healing, the attitude towards MC, fear of decreased sexual performance, and fear of reduced income due to inability to work after circumcision, knowledge about VMMC, and peer influence.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

This chapter covers the theoretical and empirical literature on voluntary medical male circumcision in different study settings and the specific objectives. The purpose of literature review was to establish the foundation of the study and to identify a framework within which the primary data would be contextualized and interpreted.

2.1 Prevalence of uptake of Voluntary Medical Male Circumcision

According to Wang, A. L., Duke, W., & Schmid, G. P. (2009), approximately 30% of the world's male population aged 15 years and above are circumcised. Of these, around two thirds (69%) are Muslim (living mainly in Asia, the Middle East and North Africa), 0.8% are Jewish, and 13% are non-Muslim and non-Jewish men living in the United States of America. The Jews and Muslims considered infant circumcision as a normal practice. In countries like Turkey where circumcision is socially acceptable, boys do not see themselves as men until they get circumcised. The Jews practice it universally at infancy as an outward sign of the covenant between them and their God as indicated in their holy book, the Torah.

Within North Africa and West Africa countries which are majorly Islamic, MC is almost universal (WHO and UNAIDS, 2012). However, it is less common in Southern Africa where the prevalence is around 15% in Botswana, Namibia, Swaziland, Zambia and Zimbabwe (Hankins, 2007).The variations in the uptake of VMMC in African countries as seen earlier on is associated to different ethnic groups. The Nilotics or Sudanese speakers are traditionally non-circumcising. Similarly, the Bantu speakers abandoned MC centuries ago for various reasons. For instance, in Botswana, southern Zimbabwe, Malawi and parts of South Africa, circumcision was stopped by the European missionaries and colonial administrators. In Swaziland, the Swazi King Mswati II abandoned MC as it was thought to incapacitate men during war times (Mark, 1997).

In general, the overall circumcision rates generally vary markedly between tribes that do and do not circumcise in Sub Saharan Africa. The rate amongst males over 15 years of age is 8% in Swaziland, 10% in Zimbabwe, 11% in Botswana, 12% in Malawi, 13% in Zambia, 14% in Uganda, 21% in Namibia, 25% in South Africa, and 70% in Tanzania, 85% in Ghana, 90% in Nigeria, 90% in Angola, 90% in the Democratic Republic of Congo, and 92% in Ethiopia.

Data from Orange Farm in South Africa indicates lower HIV prevalence among circumcised men compared to uncircumcised men. (Lissouba et al. 2011).

In Tanzania where the national HIV prevalence is 5.6%, heterogeneous transmission accounts for up to 15% of HIV cases and 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 VMMC attributable to culture, traditions and religions. (WHO, 2014)

A study done by Waruiru et al (2014) in Kenya Aids Indicator Survey (KAIS) revealed that 85% of adult males have been circumcised primarily as a rite of passage for religious and medical reasons, unlike in a few tribes including the Turkana and the Luo. According to the Ministry of Health (MOH), in Uganda, (2013), only 27% of the total male population is circumcised with a majority being Muslims.

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.

However, there is little information about the prevalence of voluntary medical male circumcision in Purongo, Nwoya district.

2.2 Socio-demographic factors affecting the uptake of Voluntary Medical Male circumcision amongst males above age of 15 years

According to Robert Wheeler and Pat Malone (2013), an estimated 665 million men above 15 years of age in the world are circumcised with the majority being Muslims**.** In the UK, infant male circumcision is routinely practiced, based on social and economic class hospitals which had Medic aid coverage for infant male circumcision recorded 24% service utilisation higher than those without (Leibowitz, 2009). Before the Second World War, army records show that 50% of the working class and 85% of the upper class men in England were circumcised (Gollaher, 2013).

According to Darby, (2015). Australia recorded a sharp increase of 80% in 1950 whereas UK noted decline in numbers. The practice of circumcision was done for medical purposes. By the 1920s, doctors and child-care manuals looked at circumcision as part of responsible

parenting.

According to Castellsague, et al., (2002), men who are circumcised were less affected by cancer of the penis and other urinary tract infections. Besides the above advantages, there is decrease in the number of people accepting to be circumcised in England.

Overall, countries where this practise 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).

In Malawi, the government of Malawi launched the VMMC programme with the aim of circumcising 2.1 million people by 2016 but 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 are Christians 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 (Mweningue, 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 (WHO/UNAIDS, 2012).

According to WHO, 2014 circumcision rates tend 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.

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. (Waruiru et al, 2014)

The Turkana of Kenya and Bahima of Uganda consider older men who don't practice circumcision as disregarding tradition and assimilating to other cultures, and since the older men are the keepers of culture, they are expected to uphold Turkana traditions and keep to it (Macintyre, et al., 2013).

In some cultures however, circumcision is not embraced as a cultural practice. Circumcision is not a cultural practice among the Turkana of Kenya. It was found out that respondents consistently spoke of circumcision as a practice of other ethnic groups. Adopting it carried negative symbolism, as most of Turkana's traditional territorial enemies such as the Pokot, Samburu and Marakwetdo circumcise men as a rite of passage into adulthood (Macintyre et al, 2013).

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. Safe Medical Male Circumcision was thought to erode their distinction from other tribes.

In Uganda some tribes such as the Sabiny, Bagisu, Bankonjo and Bamba tribes also 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 (Kibira, et al. 2015).

2.3 Personal factors affecting the uptake of Voluntary Medical Male Circumcision

Globally, there is an increasing awareness that VMMC plays a big role in the reduction of sexually transmitted HIV since adequate knowledge is resulting to a positive long lasting behaviour change (UNAIDS, 2012). Male circumcision is conducted at varying costs from country to country and from institution to institution depending on where the procedure is conducted and who performs it. In Uganda, VMMC is free in Ugandan government hospitals; however there are barriers to its uptake which accounts for the low uptake of the service in different communities.

According to Tarimo et al (2012), in their study on the perception of 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. They added that uncircumcised penis needs regular cleaning in order to avoid accumulated fluids which produce an offensive smell. 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. Overall, knowledge, beliefs, perceptions and attitudes influenced acceptability of MMC in Tanzania (WHO/UNAIDS, 2012).

According to Plotkin et al (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 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.

The Ugandan and Kenyan VMMC programs have also reported a similar pattern of young VMMC clients hence confirming this cultural preference for circumcision at a younger age (Herman, Bailey and Agot, 2012).The majority of uncircumcised men reside in the villages, and those who move to cities where circumcision is a common practice become prone to stigmatization and discrimination. Thus they feel inferior and incomplete as men.
Knowing that the abstinence period from sexual activities after circumcision is rather long was a significant barrier of uptake of SMC amongst men. Similarly, participants believed that men, especially young men, would be concerned that their female sex partners might seek other lovers while they are recovering. Older men reported that sleeping in the same bed with a wife would make it difficult to observe the abstinence period. Some participants who knew the recommended duration of the abstinence period as six weeks thought that this was too long to abstain from sexual intercourse. (Herma-rollof et al., 2011).

According to Smallhorne M., (2017) in a study done at 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, 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 has 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 work) had caused men to delay seeking VMMC.

According to AVERT, (2017), in study that was done in rural Kisumu the fear of pain was also a major concern regarding the uptake of SMC. Men expressed concern about pain during surgery, but also feared pain during recovery. 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.
Previous studies carried out in Kenya and Tanzania indicated that uncircumcised men experienced premature ejaculation, decreased penile hygiene and unfit for marriage. Male circumcision was believed to be a developmental milestone for a man. It was also perceived to protect one from sexual diseases. Opinions were expressed with regards to enhanced sexual pleasure in which circumcised men were thought to "perform" longer, thereby increasing their female partner's satisfaction (Lukobo &Bailey, 2009).

In a longitudinal study conducted to check the perceptions and attitudes of female partners of recently circumcised men in Nyanza Province in Kenya, women who had been in relationships with the uncircumcised men before and after their circumcision were satisfied with their partners 'decisions to up take circumcision and high number of women (91%) reported more sexual satisfaction than before circumcision. However, a relatively high number of women (84%) perceived themselves as not being at risk of contracting HIV and other STIs anymore. Men who did not practice traditional male circumcision expressed limited interest in the practice although some expressed considering male circumcision because of the beliefs that women preferred circumcised men (Plotkin M, et al. 2013),
In Kenya, non-circumcised men revealed that they would adopt MC for themselves or for

their sons if it was proven to reduce the risk for HIV and STIs and on condition that it is to be offered free of charge or at a nominal cost. The following were cited as reasons not to circumcise: cultural, tradition, pain, and safety, as well as other barriers, such as cost and the concern that men would engage in more sex if they perceived themselves to be fully protected by circumcisions (Bailey & Lukobo, 2007).

According to Bailey et al., (2012) carried out in Kenya, pain during and immediately after the procedure and during the healing process was seen as a significant barrier to Safe Medical Male Circumcision. Participants expressed concern over bleeding in medical, traditional or religious circumcision. Infection and poor healing process were also seen possible as barriers to Safe Medical Male Circumcision (SMMC).

In some studies, the fear about sexual performance was regarded a serious concern that would prevent the uptake of SMC among men. 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 rumours that circumcised men could not satisfy their wives and that there was a large chance that the wound would not heal properly. From results of the same study, there was fear of marital dissolution due to circumcision. This is because when a man fears for his ability to satisfy his wife, one cannot afford to lose his wife because of adult circumcision, therefore they prefer opting out and not do the procedure. It was good though to learn that participants were open to further educational efforts alongside personal testimonials from men who had been circumcised, so as to deal with the fear of reduced sexual performance.

According to Wamai et al (2016), there are many challenges that stand in the way of implementing a successful Male Circumcision programme. He also highlighted pain, bleeding and possible cultural tradition as some of the barriers to Male Circumcision acceptability. He noted that there are potential challenges that might make it unattainable to have a successful male circumcision intervention programme such as the politics surrounding policy development, funding and changing socio-cultural perceptions and beliefs about male circumcision.

According to Pappas- DeLuca et al., (2009), people's attitudes may change with education. Individuals' decision to circumcise is more influenced by culture or health, and the key persons involved are parents (when MC was done in childhood), doctors, and sexual partners. He furthermore noted negative attitudes and perceptions in non-circumcising communities such as northern and central regions of Uganda have a cultural influence. Older men felt like they had passed the age for circumcision and they did not see any need to uptake 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. More studies conducted on attitudes towards male circumcision concluded negative attitude towards circumcision performed after childhood (Wambura et al., 2011). Striking is that the acceptability of male circumcision is affected by socio-cultural backgrounds. Some cultures put a lot of emphasis on it, while others are silent about it.

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 behaviours for which there is such social support. A number of participants thought circumcised men were viewed favourably in their respective communities, which was thought to encourage more people to adopt (USAID, 2013).

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 VMMC 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. 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 VMMC in Nwoya District of Uganda.

CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Introduction

This chapter presents the methods that the study followed. It explains the design; study area; population; sample size, sampling techniques and procedure; data collection instruments; methods of testing the validity and reliability of instruments; the research procedure that was followed; and the data management and analysis techniques that was used in conducting the study.

3.1 Study design

This was a descriptive cross sectional study employing both qualitative and quantitative methods of data collection. The cross sectional study was used because the study is meant to collect prevalence data and other detailed information that is representative of the whole population in a short period of time. Therefore it is an established fact that this type of study design would be the most suitable for obtaining this particular information.

3.2 Data sources

The researcher used both primary and secondary sources of data. The primary sources included information obtained directly from males aged 15 years upto 49 years through face to face interviews, observation checklists and questionnaires. Secondary data was collected through documentary sources in the area of the study.

3.3 Study area

This study was carried out in Purongo sub county, Nwoya District situated in northern Uganda. Purongo Sub County was chosen basing on information that there is high number of uncircumcised men aged 15 years and above (Ministry of Health HMIS, 2017). Purongo Sub County covers the land area of 241038 Km^2. It has a total population of about 27,302 people. 13746 are females while 13556 are males of which 7099 males are above 15 years. The residents of Purongo Sub County believe in the Luo culture which is traditionally deterrent from circumcision.

3.4 Study population

The study population comprised all the males aged 15years upto 49 years and are living in Purongo Sub County. Key informants such as religious leaders, local leaders, traditional leaders, teachers

3.5 Eligibility criteria

3.5.1 Inclusion criteria

The following category of participants were included in the study;

1. All males who were 15 years up to 49 years and found residing within the area of study.
2. Participants voluntarily accepted by informed consent to take part in the study. Parents and guardians assented for those above 15 but below 18 years

3.5.2 Exclusion criteria

Men were excluded from the study if they were above 49 years and with hearing and talking disabilities and those below 15 years were also excluded.

3.5.3 Sample size determination

The following slovin's formula was used to determine the sample size because the population of males aged 15years above are less than 10000 people.

$$\mathbf{n=\frac{N}{1+N(e)^2}}$$

Whereby n= Sample size, N= Population, e= Level of significance= 0.05

Since Purongo Sub County has approximately a population of 7099 males aged 15years and above (UBOS, 2015).

Therefore,

$$\mathbf{n}=\frac{N}{1+N\,(0.05)^2}$$

7099/1+7099(0.0025)

n=380 Respondents

The sample size of 380 respondents were interviewed

3.5.4 Sampling techniques

Purongo sub-county is constituted of 4 villages. In order to have a representative sample from all the four villages, stratified proportionate sampling was conducted in the study area to obtain the sample of 380 respondents as shown in the table below.

Table 1: showing distribution of respondents in each ward

Stratum	**Population**	**Sample**
Pabit	$\frac{1842}{7099} \times 380$	99
Pawotomero	$\frac{2374}{7099} \times 380$	127
Paromo	$\frac{1310}{7099} \times 380$	70
Patira	$\frac{1573}{7099} \times 380$	84
Total		**380**

A proportional sample was drawn randomly selected from each of the four (4) strata until the required number of respondents was attained as calculated above.

3.6 Study variables

Dependent variables: was uptake of VMMC amongst males aged above 15 years

Independent variables: were socio-demographic factors and personal factors affecting the uptake of VMMC among males above 15 years.

3.7 Research tools and instruments

The study involved collection of both quantitative and qualitative data using questionnaires and key informant guides. The data was focused on the uptake of VMMC, Personal and socio-demographic factors influencing uptake of VMMC. A standardized questionnaire containing both close ended (structured) and open ended (semi-structured) questions was developed in line with the study objectives (Refer to Appendix II.

ɛsearch tool	ıriable to collect
mi administered questionnaires	Information from the participants about uptake of VMMC, socio-demographic and personal factors related with the uptake of VMMC
ɛy informant guides	Information from key informants regarding the accessibility and acceptability of VMMC services

A copy of the key informant guide is also included in appendix III.

3.8 Data collection procedure

Upon being granted permission from Clarke International University and the Research ethics committee, the researcher asked for voluntary participation through written informed consent. Questionnaires and key informant guides were then administered to the respondents with the help of research assistants who had been trained for the study. During data collection, research assistants also checked for consistence and completeness of information obtained from the respondents so as to ensure reliability of the collected data. During an interview with the key informants, the researcher recorded the information using the pen and notebook and through audio recording.

3.9 Quality control

3.9.1 Validity of instruments

As described by Amin (2005), validity is the degree to which a test measures what it is supposed to measure. To ensure validity of research instruments, pilot testing of copies of questionnaire was carried out in the neighbouring sub county of Alero. This helped to assess the language clarity, ability to tap information from respondents, acceptability in terms of length and ethical consideration for clients. Translating of the research tools into the local language (Acholi) was done so as to enable easy understanding and interpretation of the questionnaire by the study respondents. Qualitative validity of instruments was ensured by processing data into manageable proportions through editing, coding, and tabulation methods. Data collected was checked while still in the field to ensure that all questions are answered.

3.9.2 Reliability of instruments

The reliability of the instruments was established using Cronbach's alpha coefficient after pilot testing of the questionnaire. Furthermore, the researcher's supervisor has thoroughly revised the questionnaire to ensure that it will generate similar responses from different participants. Research assistants, who could understand the local language, could read and write English were selected and trained. Training included revision of data collection tools and orientation on tasks to be accomplished. These research assistants were also involved in pretesting of data collection tools.

3.10 Data analysis and presentation

Data was cleaned, coded and entered into Statistical package for social sciences (SPSS) version 20.0 for statistical analysis. By coding, answers to each item on the questionnaire were classified into meaningful categories. Tabulation was used to obtain frequencies and percentages of each item. Descriptive (univariate) data was presented as frequencies and percentages using frequency tables, pie charts and bar graphs.

To determine the association between the dependent and independent variables, bivariate analysis was performed by cross tabulation using chi-square tests. P values and their 95 % confidence intervals were calculated. All statistical tests were 2-tailed and P values less than 0.05 were considered statistically significant.

Qualitative data from key informant interviews was subjected to content analysis and was presented using phrases and quotations.

3.11 Ethical considerations

The researcher was issued an introductory letter by the Dean of the School of Nursing which introduced and granted me permission to carry out a study in Purongo sub-county.

Informed written consent was obtained from the study participants before starting the study. In conducting the study, therefore, explanations about its aims were made to the respondents, so as to obtain their informed consent. Anonymity of the respondents was assured and the data that was provided was treated with utmost confidentiality. As such, the respondents participated in the study voluntarily and mentioning of their names was avoided. Parents and guardians assented for those below 18 years

3.12 Dissemination of results

A complete bound research report was handed over to the School of Health Sciences, Department of Nursing and Midwifery, International Health Sciences University, Purongo sub-county authorities, District health authorities and Author.

CHAPTER FOUR: RESULTS

4.0 Introduction

This chapter presents the findings of the study. For clarity and chronology, it is arranged according to the three research questions that the study sought to answer. In the first section, background information about the respondents is presented, because it might be pertinent in interpreting the data that they provided.

4.1 Socio-demographic information of the study participants

The cross sectional study was carried out in Purongo sub county, Nwoya district. The study aimed at exploring the factors affecting the uptake of voluntary male medical circumcision amongst males aged 15 years and above. A total of 380 respondents who met the inclusion criteria were selected for the study. The demographic factors considered were age, religion, education attainment, marital status and occupation. The results are presented in a table and figures that follow.

Majority of the respondents (80%) were in the age range of 18-35years and least 75 (20%) were above 36 years. A good number (339 of 380) were Christians and a few (41 of 380)) were Muslims; 215 (57%) were peasant farmers. Many respondents (91%) noted that their cultures don't support medical male circumcision and only 35 (9%) revealed that their cultures supported medical male circumcision. Details regarding the analysis of the socio demographic factors are shown in the Table 2 below.

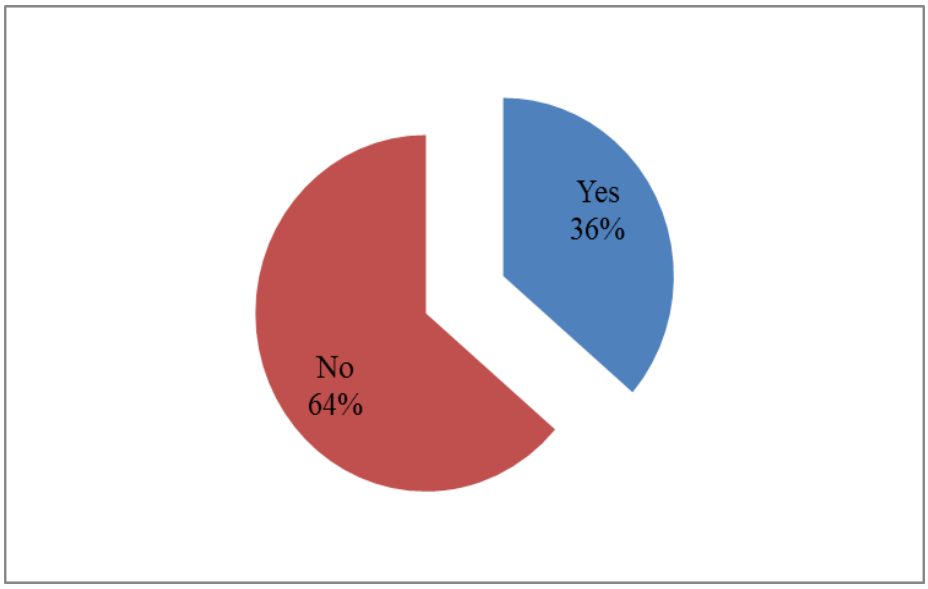
Table 2: showing the socio-demographic characteristics of the study respondents (n=380)

Socio-demographic factors		**Frequency (n)**	**Percentage**
Age group	15-25	163	42.90%
	26-35	142	37.40%
	36 Above	75	19.70%
Marital status	Single	145	38.20%
	Married	192	50.50%
	Separated/divorced	36	9.50%
	Widowed	7	1.80%
Religion	Anglican	110	28.90%
	Catholic	172	45.30%
	Muslim	41	10.80%
	Others	57	15.00%
Level of education	Never attended	109	28.70%
	Primary	135	35.50%
	Secondary	97	25.50%
	Tertiary	39	10.30%
5 Occupation	Peasant	215	56.60%
	Student	88	23.10%
	Civil servant	18	4.70%
	Business	59	15.50%
6 Does your culture support male circumcision?	Yes	35	9.20%
	No	345	90.8%

4.2 Prevalence of uptake of voluntary medical male circumcision among males above age of 15 years in Purongo sub-county

A total of 380 respondents were asked questions about their circumcision status in order to determine the prevalence of circumcised males and the results are presented below.

Figure 2: showing the Prevalence of circumcised males (n=380)



The study findings in figure 2 show that only 138 (36%) of the respondents who were involved in the study were circumcised and the majority (64%) of them were not circumcised.

4.3 Socio-demographic factors influencing uptake of voluntary medical male circumcision among males above age of 15 years upto 49 years in Purongo sub-county

The relationship between socio demographic factors and uptake of voluntary medical male circumcision was determined in a bivariate analysis as shown in the table 3 below.

Bivariate analysis indicated that almost all the socio demographic factors had a statistically significant relationship with uptake of voluntary medical male circumcision ($P < 0.05$). Only occupation of the respondent didn't reflect a statistically significant relationship with uptake of male circumcision (P =0.32).

Table 3: Bivariate analysis of socio-demographic factors and uptake of voluntary medical male circumcision among the males above age of 15 years (n=380)

Socio-demographic factors	Uptake of VMMC			Df	Pvalve
	Yes	No			
Age					
<35years	92	213	68.5323	1	0.0000*
>35years	46	29			
Level of education of the Respondent					
Never attended	20	89	1.2513	3	0.0000*
Primary school	54	81			
Secondary education	43	54			
Tertiary education	21	18			
Marital status of the respondent					
Single	68	77	8.8201	3	0.0029*
Married	52	140			
Widowed	03	04			
Separated/divorced	15	21			
Occupation of the respondent					
Peasant farmer	43	172	0.9872	3	0.3204
Student	61	27			
Civil servant	09	09			
Business	25	34			
Religion of the respondent					
Christian	97	242	80.5943	1	0.0000*
Not Christian	41	00			
Cultural support of VMMC					
Yes	24	11	17.3427		0.0000*
No	114	231			

4.4 Personal factors affecting the uptake of voluntary medical male circumcision among males above age of 15 upto 49 years in Purongo sub-county

Three hundred and eighty respondents were asked questions about uptake of voluntary medical male circumcision. This data is summarized in table 4 which follows.

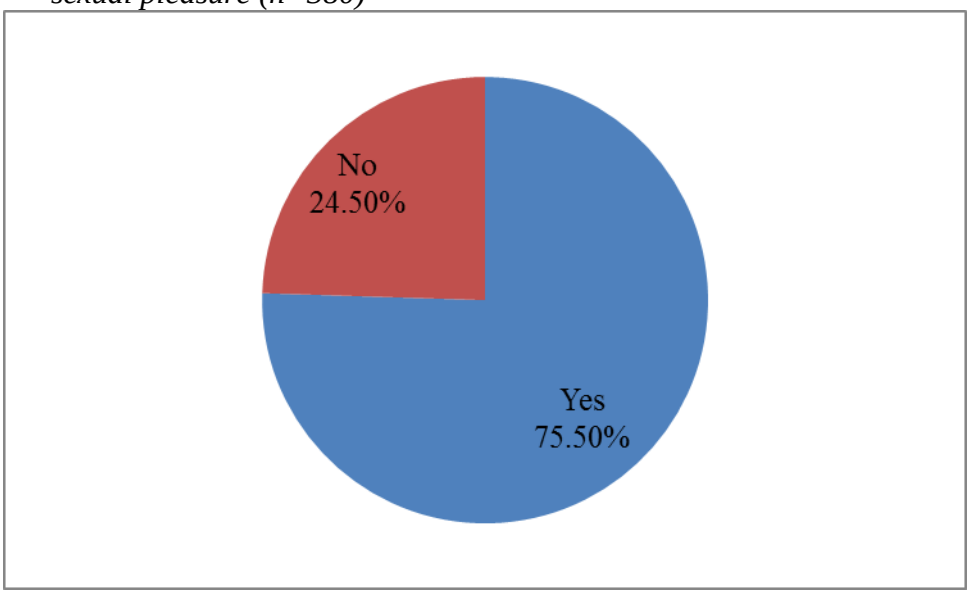
Table 4: Personal factors related to uptake of Voluntary Medical Male Circumcision amongst males above age of 15 years (n=380)

Personal factors		Frequency (n)	Percentage (%)
Awareness of voluntary medical male circumcision	Yes	183	48.20
	No	197	51.80
Your opinion about male circumcision	Very good	58	15.30
	Good	112	29.50
	Poor	210	55.30
Willingness to get circumcised	Yes	180	47.70
	No	200	52.30
Main reason you decided to get/ be were circumcised	Everybody was circumcising	11	2.90
	Improve penis hygiene	81	21.30
	My partner encouraged me	13	3.40
	Tradition	24	6.30
	Religion	41	10.80
	Not applicable	210	55.30

The study findings in table 4, indicated that 123 respondents (32.4%) revealed that they were aware of male circumcision while most of them (67.6%) were not aware of male circumcision. Only 180 (47.70%) were willing to get circumcised. About 71% (268 of 380 respondents) noted that they walked over 5 kilometres to reach the facility.

A good number (75.5%) pointed out that circumcision reduces sexual pleasure and only 93 (24.5%) did not believe that circumcision reduces sexual pleasure

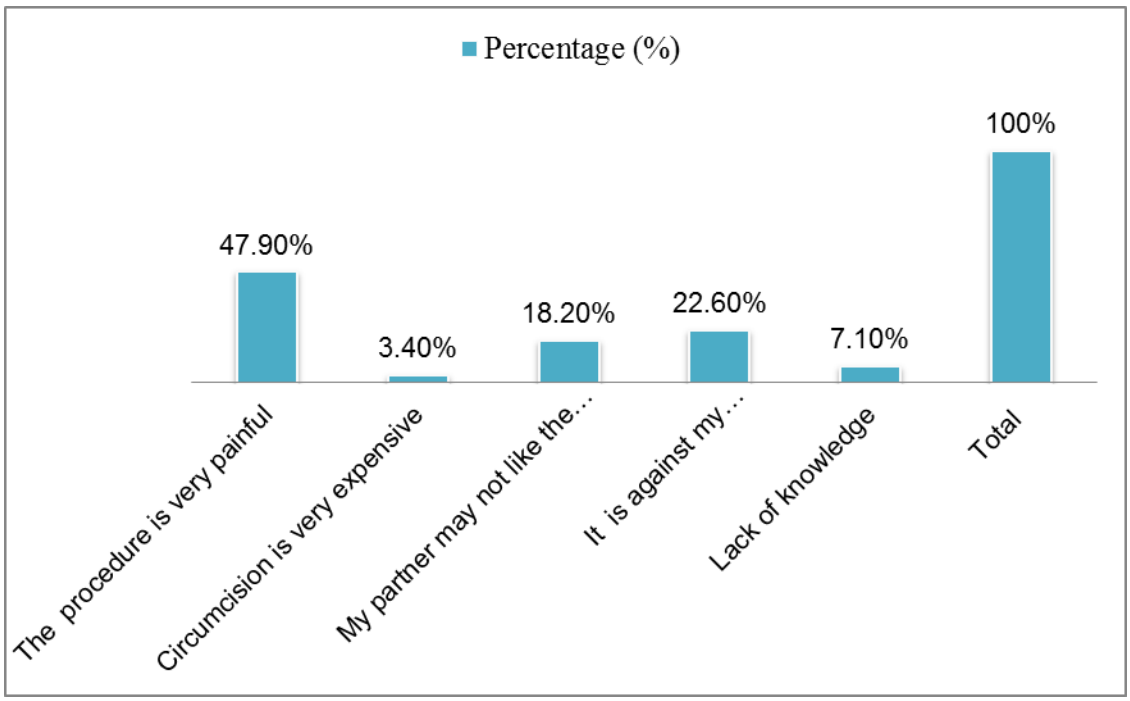
Figure 3: showing the proportion of respondents' belief that male circumcision reduces sexual pleasure (n=380)



The following factors were found out to be the common barriers affecting the uptake of voluntary male medical circumcision (VMMC); *Pain, expensive cost, refusal of my partner, it is against tradition/religion, lack of knowledge amongst others*

The magnitude of the effect of the above factors on the uptake of VMMC is as illustrated below;

Figure 4: Barriers hindering the uptake of male circumcision (n=380)



Many (182 of 380) revealed that pain was the main barrier that hindered male circumcision while about 86 of them (22.60%) noted that the male circumcision was against their traditions/religion and 69 (18.20%) discovered that their partners never supported the procedure.

4.5 Personal factors influencing uptake of voluntary medical male circumcision among males above age of 15 years up to 49 years in Purongo sub-county

The relationship between personal factors and uptake of voluntary medical male circumcision was determined in a bivariate analysis as shown in the table 5 below.

Bivariate analysis indicated that there is a statistically significant relationship between all the personal factors and uptake of voluntary medical male circumcision ($P < 0.05$).

Table 5: Association between personal factors and uptake of voluntary medical male circumcision among the males above age of 15 years (n=380)

Personal factors	Uptake of VMMC			Df	P-valve
	Yes				
Awareness of VMMC					
Yes	130	53	184.0188	1	0.0000*
No	08	189			
Your view about circumcision					
Very good	55	03	228.5749	2	0.0000*
Good	79	33			
Poor	04	206			
Willingness to get circumcised					
Yes	135	45	221.2923	1	0.0000*
No	03	197			
Circumcision reduces sexual pleasure					
Yes	67	220	85.3084	1	0.0000*
	71	22			

Source: Field Data

Results from the key informants about uptake of voluntary medical male circumcision among males above age of 15 years up to 49 years in Purongo sub-county

Regarding implementing the VMMC programme Purongo Sub- County, *one key informant noted "that the program was implemented 15 years ago but it met various resistance from cultures which are not in support of male circumcision"*

Radios, community outreaches and charts containing information about male circumcision were some of the methods used to create awareness in Purongo sub-county "revealed the key informant"

Regarding general response of the people about male circumcision *"it was discovered that general response of the majority was very poor" noted the Key Informant*

Key informants discovered that "*protection against STI/HIV, Improving penis hygiene and solve pre-existing disorders of the penis and foreskin were some of the benefits of male circumcision"*

"*Demand for male circumcision for children, adolescent sand youths was higher compared to adults"* said the Key Informant

Some of the hindrances towards uptake of VMMC by adults in this area were *"mainly traditions in Purongo sub-county "mentioned the Key Informant"*

Key informants also noted that *"the few health facilities in the sub county was also contributing to low uptake of VMMC. They stated that most target group move a distance of more than 5 kms to access health facilities"*

CHAPTER FIVE: DISCUSSION

5.0 Introduction

In this chapter, the findings of the study are discussed. For clarity and chronology, it is arranged in the order of the three research questions that the study sought to answer.
Therefore, the section is subdivided into the following subsections.

5.1 Prevalence of uptake of voluntary medical male circumcision among males above age of 15 years up to 49 years in Purongo sub-county

In this study, only 36% of the respondents reported to had been circumcised and the majority (64%) were not circumcised. 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 voluntary medical male circumcision in Purongo sub-county is low. This may be attributed to strong cultural influence among ethnic groups of Purongo sub-county since these are traditionally non-circumcising communities who abandoned male circumcision for many centuries ago for various reasons. Because of limited documentation of literature of similar studies in Uganda, it is difficult to relate the current result in line with social cultural differences seen in the other areas of Uganda. However, when compared to results from other communities of Africa, the uptake of circumcision in Purongo community is much lower compared to what was reported in the neighbouring communities of Kenya where the uptake is reported to be as high as 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 and the strong influence by religion, as well as the cultural and traditional beliefs. This calls for the need for mass sensitization about the benefits of safe male circumcision especially among people whose cultures are not in support of safe male circumcision in order to scale up the uptake of the practice in Purongo sub-county Nwoya District. If this intervention is not taken seriously, the uptake of VMMC will remain low hence increase in chance of having more number of new HIV infections.

5.2 Socio-demographic factors affecting the uptake of Voluntary Medical Male Circumcision

In this study, uptake of safe male circumcision was influenced by age, level of education of respondent, marital status, religion and cultural support. Only the occupation of the respondent didn't significantly influence the uptake of safe male circumcision. Purongo sub-county is largely a Christian community and traditionally non-circumcising community. For long, male circumcision is known to be embraced by some religions such as Muslims and Jews, while Christians are silent about it (Hankins, 2007; Hellsten, 2011; Mweningue, 2013). Also, the strong cultural belief surrounding male circumcision has a great influence of community uptake of the procedure in line with what is reported in many of the previous studies. For example, being uncircumcised in Kenya was regarded as an identity for the Luo culture (Bailey et al., (2012); while among the Iringa community in Tanzania, many participants also noted that circumcision was never a part of their traditional practice since their ancestors were not circumcised too (USAID, 2013).

The present results are also in line with a study that was done in Rakai, Uganda in which culture was shown to negatively influence to uptake of medical male circumcision (Muhangi, 2012). This is because circumcision is not traditionally practiced in majority cultures in Uganda. Thus in order for procedure to be adopted, methods of mass sensitization about the benefits of safe male circumcision need to embrace the role of religion and culture as strong determinants of uptake of male circumcision and bring on board religious and traditional leaders in sensitization of communities about the importance of male circumcision since majority of the respondents were Christians. Therefore a multi stakeholder approach in the rolling out of Safe Male Circumcision should be adopted and traditional and religious leaders should be consulted on concerns that may be beneficial in addressing a potential conflict between conventional and traditional practice.

Regarding the level of education, 35.5 % of the respondents had at least attained a primary school while less than a third never attended any school. Generally, people's attitudes may change with education. Individuals' decision to circumcise is more influenced by culture or health, and the key persons involved are parents if male circumcision was done in childhood or by doctors, individuals and sexual partners. Observations from the various studies shows that level of education increases awareness about HIV/AIDS as it plays a vital role in risk reduction as sufficient knowledge may bring about long-lasting behaviour change. Based on

this, the current study discovered that about almost half of the study participants were aware of male circumcision but had less knowledge on HIV and male circumcision.

This may be attributed to the lack of educational campaigns about HIV prevention strategies in Nwoya district. This agrees with the findings of Richters et al., (2010) in a nationwide survey that was carried out in Australia which found out that a bigger proportion of circumcised men were associated with higher levels of education. The fact that the level of education was at least high among respondents suggests that male circumcision implementers should utilize this advantage and focus on health educational campaigns to promote Male Circumcision uptake.

About half of the respondents were married. Studies carried out in different countries indicate that traditional groups practicing male circumcision revealed that uncircumcised men experienced premature ejaculation, decreased penile hygiene and unfit for marriage (Plotkin et al.,2013). Male circumcision was believed to be a developmental milestone for a man. It was also perceived to protect one from sexual diseases. In some studies, opinions were expressed with regards to enhanced sexual pleasure; in which circumcised men were thought to "perform" longer, thereby increasing their female partner's satisfaction. However, this current study discovered that the majority of the married men were uncircumcised. This could be attributed to the fact that the tradition of people from Nwoya district doesn't support the procedure as this might have compromised the uptake of Voluntary medical male circumcision. This is not consistent with the results from Uganda Demographic and Health Survey (2010), which indicated that the proportion of married and single men in regards to circumcision was comparable with 48.6% of the married men and 41.1% of single males circumcised. Therefore there is a need to awareness of comprehensive HIV prevention strategies particularly safe male medical circumcision. This would facilitate adoption of positive attitude towards male circumcision as the study findings have demonstrated that awareness changes negative attitudes into positive attitude (Pappas-DeLuca et al.2009).

The age has also been noted to influence acceptance to circumcision foristance in Tanzania, the males prefer to be circumcised when they are younger than 25 years. This is similar to most African countries including Uganda. . (Plotkin M et al., 2013),

There was no statistically significant relationship between the occupation and uptake of male circumcision (P >0.05). This implies that much efforts need to be put on all categories of

people regardless of what they do. This will increase the uptake of VMMC by males from different occupations for example farmers, businessmen, civil servants, students etc.

5.3 Individual related factors affecting the uptake of Voluntary Medical Male Circumcision

Among the individual factors that had a significant influence with voluntary medical male circumcision was awareness about medical male circumcision, opinion about circumcision, willingness to get circumcised and the belief that circumcision reduces sexual pleasure. The study findings discovered that only a third of the respondents revealed that they were aware of male circumcision. Although there is scientific evidence that clearly shows that male circumcision reduces the risk of HIV infection- by providing partial protection among the heterosexual men from contracting HIV by at least 60%. People are less knowledgeable about benefits of male medical circumcision due to the fact that majority had no access to media information and little access to the health facilities due to long distances, others don't access print material on VMMC while some didn't know how to read This is consistent with the results of the study conducted in Nairobi among the Luo communities by Tarimo et al., (2012) which indicated that the participants were less knowledgeable about the male circumcision. There is a comprehensive need to raise awareness about HIV prevention as it plays a vital role in risk reduction of the new HIV infections and it's also believed that sufficient knowledge may bring about long-lasting behaviour change. This would facilitate adoption of positive attitude towards male circumcision.

About 9 in 10 of the study participants noted that their culture doesn't support male medical circumcision. Being uncircumcised is regarded as an identity for the Luo culture. This was perceived as a cultural and traditional barrier to acceptability of Male Circumcision. The absence of Male Circumcision is a significant component of Luo identity aside from language because Safe Medical Male Circumcision is thought to erode their distinction from other tribes. This implies that the majority of males in Purongo sub-county were more likely to reject the procedure as it was against their cultures/ traditions. These results are in line with the results of another study by Macintyre, et al., (2013), which discovered that amongst the Turkana of Kenya and Bahima of Uganda who don't practice Circumcision, older men consider circumcision as disregarding tradition and assimilating to other cultures and since the older men are the keepers of culture, they are expected to uphold Turkana traditions and keep to it. Therefore there is a need for the stake holders such as the ministry, the district

health team in collaboration with traditional leaders to harmonize on the beliefs about circumcision.

Only, 48% of the participants in Nwoya district Purongo Sub County were willing to get circumcised, while greater than half of the respondents expressed limited interest in the Male Circumcision because of beliefs that women preferred uncircumcised men. The current study discovered that non-circumcised men revealed that they would adopt Male Circumcision for themselves or their sons if it was proven to reduce the risk for HIV and STIs and on condition that it is to be offered free of charge or at a nominal cost. Although cultural differences that exist may influence the uptake of male circumcision, education about benefits of male circumcision would strongly influence individual decisions on uptake of male circumcision. This is quite similar to what was found out by the Uganda AIDS Indicator Survey (2011) which indicated that 46% of the men would accept to be circumcised.

A number of barriers were indicated to influence uptake of medical male circumcision including pain following circumcision, safety of the procedure, traditions/religious beliefs and spousal refusal. Some even expressed the concern that men would engage in more sex if they perceived themselves to be fully protected by circumcision. This means that there is need for male circumcision implementers to educate men about the benefits associated with procedure. With an understanding that the benefits of male circumcision are great and outweigh the perceived barriers, one would likely under look the perceived disadvantages of being circumcised, there by leading to improved uptake of the procedure. This is in line with other studies which highlighted pain, bleeding and cultural/ tradition beliefs as some of the barriers to Male Circumcision acceptability (Wamai et al., 2011).

About 1 in 5 of the men reported that their partners never supported the procedure. This implies that most men in Purongo sub-county are likely not to take-up the procedure because of the assumption that women disliked circumcised men. However according to the observations from a study conducted in Kenya to check the perceptions of female partners of recently circumcised men, it was found that all females were satisfied with their partners' decisions to take up circumcision and high number of women (91%) reported more sexual satisfaction than before circumcision (DeLuca et al., 2009).

Therefore community mobilization and education about the benefits of medical male circumcision in Purongo sub-county, Nwoya district is needed, considering that a great number (3/4 of the males) believed that circumcision reduces sexual pleasure implying that men who have not yet been circumcised are unlikely to accept the intervention as they fear to lose their sexual power and virility. These findings however contradict a report from Iliyasu et al., (2012) which discovered that some participants believed that circumcision will increase their sexual power and virility which may be explained by the differences in traditional beliefs about circumcision.

5.4 Limitations of the study

Field data was collected from the study respondents by self-report. Self-reporting may have limitations in that some respondents could withhold information regarding VMMC uptake, yet the researcher could not carry out any physical examination to confirm respondent's circumcision status.

CHAPTER SIX: CONCLUSION AND RECOMMENDATION

6.0 Conclusion

The prevalence of uptake of voluntary medical male circumcision amongst males aged 15 years and above in Purongo sub county was 36.3%.

Socio demographic factors that had a significant influence on uptake of voluntary medical male circumcision amongst males aged 15 years and above in Purongo sub county were age, level of education, marital status, tradition/culture and religion.

The study also found that awareness about safe male circumcision, attitude to get circumcised, pains during the procedure, refusal of partners, and the belief that circumcision reduces sexual pleasure were the significant individual factors that affected the uptake of voluntary medical male circumcision in Purongo sub-county, Nwoya district.

6.1 Recommendation

The district health teams and corporate bodies should make information on male circumcision and other HIV prevention methods available to their communities so as to increase awareness on the benefits of male circumcision in preventing HIV acquisition and transmission of other STDs. This could be achieved by inviting speakers on the subject and through sourcing literature on the subject; promotion of drama in communities while focusing on the same issue can go a long way in communicating factual and relevant information to reach parents and communities at large.

Health centre staffs together with community leaders and VHTs should design outreach programmes specifically on safe male circumcision (SMC) to improve the attitudes of men as studies show that awareness changes negative attitudes into positive.

The mass education on the benefits of male circumcision should be provided by the skilled health care providers to reduce fear of pain and other perceived disadvantages associated with the procedure such as the fear of reduction of sexual pleasure.

A multi stake holder approach in the rolling out of Safe Male Circumcision should be adopted seeing that individuals opt to be circumcised by various service providers. Thus traditional and religious circumcisers should be consulted and concerns should address a potential conflict between conventional and traditional practice.

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APPENDICES

APPENDIX 1: RESPONDENTS CONSENT FORM

Introduction

Good morning/afternoon sir/ madam, I am a student of international health sciences University undertaking a Bachelors' degree in Nursing. Currently, I am carrying out a research on factors affecting the uptake of voluntary medical male circumcision amongst males aged 15 years and above. I therefore, request that you give little of your valuable time and answer the questions I will ask.

The purpose of the study

The aim of this study is to investigate the factors affecting the uptake of voluntary medical male circumcision among males aged 15 years and above in Purongo sub county. It is a service that has been introduced to non-circumcising communities in order to encourage men who are not circumcised to become circumcised as a preventive measure in the spread of HIV. The information you provide will therefore be of benefit to you and also aid in providing insights into the factors associated with VMMC and help form a basis for formulating informative policies.

Procedure

The purpose of this form is to obtain your consent to participate. If you choose to participate a questionnaire will be administered to you and the interview will take between 10 and 20 minutes to complete. However, if you have difficulties in filling out the questionnaire or have problems with communicating your views and information, you may be assisted by close family members and close friends.

There are no right or wrong answers to the questions; we would just like to learn about your personal thoughts and attitudes. If you don't understand a question, please tell me, and you can add further information at any stage.

Any question you don't understand please ask.

Participation is voluntary.

You are free to choose to participate or not.

Costs of the study. The study is free of charge. The participant does not pay any money to be involved neither does he get paid for his participation.

Benefits

The results of this study will be communicated back to you and to Purongo Sub County who will also take action depending on the outcome. The results will also be used in writing my thesis as part of requirements by the university.

Risks of the study

Apart from the inconveniences caused by taking part of your time, the process is safe and there are no risks involved. But some questions may appear uncomfortable but it is necessary for you to answer them with honesty. However, we will try as much as we can to make sure we save on your time.

Confidentiality

All the information obtained will be strictly confidential and data password protected only accessed by the Principal investigator, study subjects in the study will be kept anonymous, being identified only by specific numbers assigned by the principal investigator.

Right to participate, or withdraw from the study.

The participants are given freedom to choose voluntarily to participate or even withdraw from the study if they feel uncomfortable during the study

Declaration of the volunteer

Having known the purpose of the study and having been assured of the confidentiality of the information that will be obtained from me, I voluntarily accept to give information according to the questions that are being asked.

Signature…….date……

Researcher

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

APPENDIX II: QUESTIONNAIRE

FACTORS THAT INFLUENCE UPTAKE OF VOLUNTARY MALE MEDICAL CIRCUMCISION (VMMC) AMONGST MALES ABOVE THE AGE OF 15 YEARS OF IN PURONGO SUB-COUNTY

Declaration: Answers to the questions contained in this questionnaire will be kept confidential.

Name of the interviewer……

01	Ward	
02	Respondent's No	
03	Date of Interview	*Indicate DD/MM/YYYY ……/……/……..*
I.	**Socio-demographic factors**	
04	Age of the respondents	15-25years ☐ 26-35years ☐ 36-45 years ☐ 46-55 years ☐
05	What is the highest education level that you have completed?	I did not attend school ☐ Primary school ☐ Secondary ☐
06	Are you able to read and write?	Yes ☐ No ☐
07	What is your religion?	Anglican/protestant ☐ Catholic ☐ Muslim ☐ Others specify.....
08	What is your ethnic tribe?	Specify tribe ……..
09	What is your occupation?	Peasant ☐ Business ☐ Civil servant ☐
10	What is your marital status?	Married ☐ Single ☐ No, widowed ☐ No, divorced/separated ☐

II.	**Prevalence of circumcised males**	
	Questions and Filters	**Coding Categories**
1	Are you circumcised?	Yes ☐ No ☐
2	Where were you circumcised?	Hospital ☐ Religious circumcision at a mosque ☐
3	At what age were you circumcised?	Age in years..... Not applicable ☐
III.	**Individual related factors affecting the uptake of voluntary Medical male circumcision**	
1	Can you tell us what you know about safe male Circumcision?	Able ☐ Unable ☐
2	Does your culture support male circumcision?	Yes ☐ No ☐
3	What is <u>the main reason</u> you decided to get/were circumcised? *(Circle only the main reason)*	Everybody was circumcising ☐ Improve penis hygiene ☐ My partner, parents, friends encouraged me Tradition ☐ Religion ☐
4	What are the barriers to safe male circumcision (Circle ALL reasons chosen)	Circumcision procedure is ☐ry painful .....1 Wound takes very long to heal/ can't do work…2 Fear of complications …….....3 Fear having an injection in my penis ….....4 May affect sexual performance ….....5 My partner may not like the penis ….....6 You take long to have sex …….....7 Interferes with work……...8 It is against my tradition.....9
5	Does Safe medical male circumcision reduces sexual pleasure?	Yes ☐ No ☐
7	What is the distance from your village to the health facility?	<5KM ☐ >5KM ☐

8	What are some of the methods of HIV prevention you know?	Abstinence.....1 Use of the condoms.....2 Being faithful to each other..... ..3 Circumcision.....4 Not sharing of the sharp objects.....5
9	Can Circumcision reduce the risk of getting infected with HIV and STIs?	Yes.....1 No .....2 I don't know.....3
10	Have you ever accessed information on VMMC?	Yes……1 No ……...……2

Thank you very much for your time

APPENDIX III: INTERVIEW SCHEDULE FOR KEY INFORMANTS

Work place.....

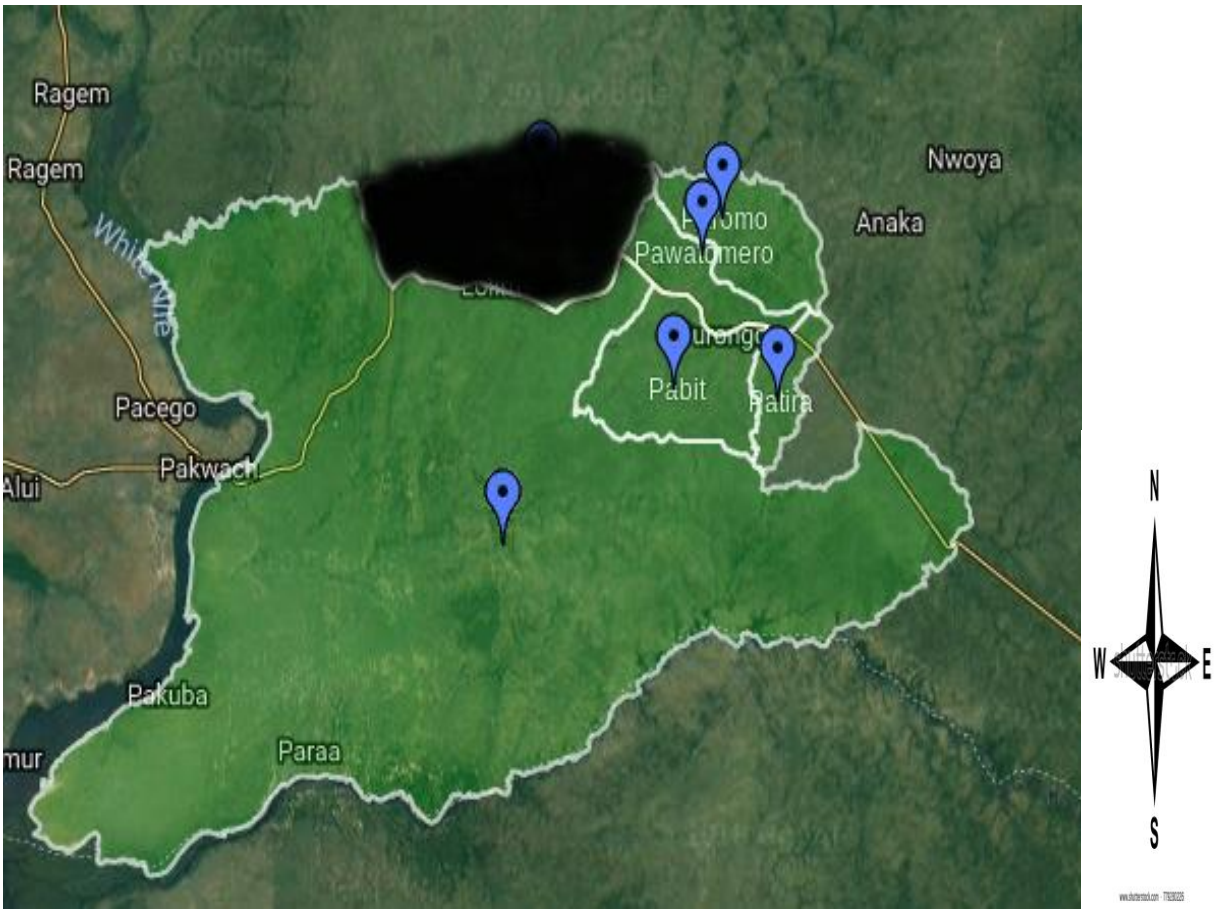
Role Played in VMMC implementation.....

1. When did you begin implementing the VMMC programme in this region (Purongo Sub- County What methods do you use to create awareness?
2. What is the general response of the people?
3. What are benefits VMMC?
4. What are some of the challenges you have met during implementation of this programme?
5. Any complications during or after the operations reported?
6. Have you been able to measure up to the demand for MC?
7. How do you compare demand for MC for children, adolescents and youths, with the adults'?
8. What are some of the hindrances towards uptake of VMMC by adults in this area?
9. Comment on the influence of the following on uptake of VMMC by adult Luo men in this area:

- Culture and Religion
- Awareness/ level of education
- Availability of VMMC facilities
- Distance from the providers
- Safety in terms of professional service, without complications
- Age, Marital status and Experience

Type of employment held by the people / economic status

APPENDIX IV: MAP OF PURONGO SUBCOUNTY SHOWING THE PARISHES WHERE THE STUDY WAS CONDUCTED FROM



KEY

Purongo Sub County

Latoro Sub County newly created from Purongo

Karuma – Pakwach road

Bordering sub counties and machsion falls national Game Park

APPENDIX V: INTRODUCTORY AND CORRESPONDENCE LETTER

IHSU INTERNATIONAL HEALTH SCIENCES UNIVERSITY
sanitas per scientiam

making a difference in health care

Office of the Dean, School of Nursing

Kampala,4th November 2018

PURONGO SUB COUNTY
NWOYA DISTRICT

Permission granted to collect data Under the supervision of Incharge Purongo HC II

DISTRICT HEALTH OFFICER NWOYA DISTRICT L.G
06 NOV 2018
SIGN

Dear Sir/Madam,

RE: ASSISTANCE FOR RESEARCH

Greetings from International Health Sciences University.

This is to introduce to you **Emoit John Bosco** Reg. No. **2015-BNS-TU-JAN-026** 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 in partial fulfillment of the a ward.

The topic of research is: **Factors Influencing Uptake of Voluntary Medical Male Circumcision Among Males Above the Age of 15years in Purongo Sub County, Nwoya District..**

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,

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06 NOV 2018
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