

Perceptions of men and women towards male circumcision as an HIV prevention intervention in Windhoek district

by

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DECLARATION

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ABSTRACT

Background: Scaling up of male circumcision in Namibia is running at a low pace. People need to understand the role that male circumcision plays in the prevention of HIV acquisition. Therefore, it is important to increase knowledge among individuals in order to make them acquire positive attitudes and perceptions towards male circumcision as an HIV preventive strategy.

Method: This research study investigated the perceptions of men and women towards male circumcision as an HIV prevention intervention in the Windhoek District. A total number of 250 respondents were conveniently selected for participation in the study, of which 50% were males and another 50% represented females. All respondents were 18 years and older. A quantitative method of sampling was employed with the use of anonymous questionnaires. Data were captured and analyzed using SPSS version 20.

Results: Most respondents (76.8%) reflected good knowledge about male circumcision and positive attitude (93.6%) towards male circumcision and its benefits but there were still a proportion of respondents (23.2%) who are not knowledgeable about the benefits of MC, and 6.4% of the respondents have negative attitude towards MC, whilst a large proportion of 53.2% have negative perceptions towards MC and its benefits. The study also found that there is an association between knowledge and perceptions of 0.250 at $p\text{-value} < 0.05$, as well as an association between attitudes and perceptions 0.213 , $p\text{-value} < 0.001$.

Conclusion: It was concluded that knowledge plays a major role on attitude and perception changing. The more knowledgeable an individual is, the more the chances of them of having positive attitudes towards MC, which could also influence positive perceptions towards MC. In order to strengthen male circumcision as an HIV prevention strategy, it is imperative to provide the population that reflected low knowledge and negative attitudes with information, education and counselling services. This may help to make them change their attitudes towards MC and acquire positive perceptions towards it. On barriers, the relevant authorities should come up with a strategy to eliminate barriers in order to facilitate acceptability among non-circumcised groups.

OPSUMMING

Agtergrond: Die opskaling van manlike besnyding in Namibië word teen 'n stadige pas uitgevoer. Mense moet die rol verstaan wat manlike besnyding in die voorkoming van MIV speel. Dit is daarom belangrik om hierdie kennis onder individue te vermeerder ten einde hulle te bemagtig om positiewe houdings en persepsies teenoor manlike besnyding as MIV-voorkoming strategie te bekom.

Metode: Hierdie navorsingstudie het die persepsies van mans en vroue teenoor manlike besnyding as MIV-voorkoming ingryping in die Windhoek streek ondersoek. 'n Aantal van 250 deelnemers is geselekteer vir deelname aan die studie, waarvan 50% manlik en 50% vroulik was. Alle deelnemers was 18 jaar en ouer. 'n Kwantitatiewe metode en anonieme vraelyste is vir steekproefneming gebruik. Data is vasgelê en ontleed met behulp van SPSS weergawe 20.

Resultate: Die meerderheid van die respondenten (76.8%) het goeie kennis van manlike besnyding en 'n positiewe houding (93.6%) teenoor manlike besnyding getoon, maar daar was 'n deel van die respondenten (23.2%) wat nie ingelig was oor die voordele van manlike besnyding nie, en 6.4% van die respondenten het 'n negatiewe houding teenoor manlike besnyding gehad, terwyl 'n groot deel van 53.2% negatiewe persepsies van manlike besnyding en die voordele daarvan gehad het. Die studie het ook bevind dat daar 'n verband is tussen kennis en persepsies van 0.250 teen p-waarde < 0.05, sowel as 'n verband tussen houdings en persepsies 0.213, p-waarde <0.001.

Gevolgtrekking: Daar is tot die gevolgtrekking gekom dat kennis 'n belangrike rol speel in die verandering van houdings en persepsies. Hoe meer ingelig 'n individu is, hoe beter is die kanse dat hulle 'n positiewe houding teenoor manlike besnyding sal hê, wat ook positiewe persepsies van manlike besnyding kan beïnvloed. Ten einde manlike besnyding as MIV-voorkoming strategie te versterk is dit noodsaaklik om die bevolking wat min kennis en negatiewe houdings getoon het met inligting, opvoeding en berading te verskaf. Dit kan help om hul houding teenoor manlike besnyding te verander en om meer positiewe persepsies daarvan te ontwikkel. Met betrekking tot hindernisse moet die relevante owerhede vorendag kom met 'n strategie om die struikelblokke uit te skakel ten einde aanvaarbaarheid van manlike besnyding onder groepe wat nie besny is nie, te fasiliteer.

LIST OF ACRONYMS

- AIDS** Acquired Immune Deficiency Syndrome
ART Anti-Retroviral Therapy
HIV Human Immuno-deficiency Virus
HPV Human Papilloma Virus
KAP Knowledge, Attitudes and Practices/ Perceptions
MC Male Circumcision
MOHSS Ministry of Health and Social Services
NIP Namibia Institute of Pathology
PMTCT Prevention of mother- to- child transmission of HIV
RCT Randomized Controlled Trial
SPSS Statistical Package for Social Sciences
STI Sexually Transmitted Infection
UNAIDS United Nations Programme on HIV/AIDS
USA United States of America
VCT Voluntary Counselling and Testing
WHO World Health Organization

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CHAPTER I

INTRODUCTION

1.1 Background

HIV/AIDS is still a major public health challenge worldwide. Sub-Saharan Africa is hardest hit by HIV/AIDS. This region houses 10% of the global population. Statistics revealed that 68% of HIV infection occurs in Sub-Saharan Africa (United Nations programme on HIV/AIDS (UNAIDS), 2008). It is estimated that about 70% of HIV infection in adult men is through vaginal intercourse (Bailey, Plummer & Moses, 2001). So much effort has been put on designing the interventions that can reduce the number of new infections, but most of them have proven futile. Despite the attempts of rolling out Anti-retroviral programmes for people living with HIV/AIDS, there is still a high rate of new infections (Obure, Nyambetha, Oindo & Kodero, 2009). Due to the increase in the new infections, it is imperative to promote effective interventions that are put in place to control the spread of HIV.

Namibia is one of the Sub-Saharan countries with a relatively high HIV prevalence. Since the first HIV diagnosis in Namibia in 1986, the epidemic has certainly spread at a devastating pace, especially between 1999 and 2002 where it peaked especially among adults (15-49), practically disheartening the national efforts directed at curbing it off (Ministry of Health and Social Services, 2010). The 2010 Sentinel Survey conducted on pregnant women revealed HIV prevalence rate of 18.8%, which shows a slight stabilization in HIV prevalence since 2004 (MOHSS, 2010). The main mode of HIV transmission in Namibia is through heterosexual intercourse.

In an attempt to reduce the number of new HIV infections, Namibia adopted biomedical interventions that are directed at HIV prevention. These interventions are: Effective and consistent condom use, proper diagnosis and treatment of Sexually Transmitted Infections (STIs), Prevention of Mother to Child transmission (PMTCT), as well as Male Circumcision (MC). WHO and UNAIDS recommended the scaling up of male circumcision in countries with low male circumcision prevalence in March 2007, the decision based on revision of three Randomised Control Trials (RCT) which proved reduction of HIV transmission by 60% (WHO, 2007). Some studies indicated that the protective effect of MC is partial and therefore MC should not substitute other HIV preventive interventions aimed at heterosexual transmission (Majaja, Setswe, Peltzer, Matseke & Phaweni, 2009). Despite the fact that Namibia has been recorded to be among the top five countries being severely affected by HIV/AIDS, it has a relatively low prevalence of male circumcision of 21% (Pappas- DeLuca, Simeon, Kustaa & Halperin (2009). From September 2009 to June 2010, Namibia had only up to 350 men circumcised since the scaling up of male circumcision as a health intervention strategy (WHO, 2010). Low male circumcision is indicated as one of the drivers to HIV epidemic. Therefore, the country adopted this biomedical intervention in September 2009 and has since established three (3) sites for rolling out of male circumcision services (Global Report, 2010).

1.1 Problem statement

Namibia has been recorded to be among the African countries with low MC prevalence, but high HIV prevalence. The country is constituted of 13 regions and about 10 ethnic groups, but male circumcision is popularly practised among one ethnic group, which is the Otjiherero-speaking community. This community is scattered over three regions, namely, Kunene, Otjozondjupa and Omaheke regions. Statistically, these regions have comparatively low HIV prevalence. The rest of the ethnic groups are not significantly practising male circumcision. However, several studies have been conducted in Namibia with an effort to determine the level of acceptability of male circumcision among different communities. A certain study which was conducted in Windhoek in 2008 which assessed attitudes towards male circumcision revealed the MC prevalence of 27.4% (Pappas- DeLuca, Simeon, Kustaa, & Halperin, 2009). This indicated low MC prevalence, and yet this area has HIV prevalence of 9.1% (MOHSS, 2010).

As per recommendations of WHO and UNAIDS, countries with low male circumcision prevalence but generalised heterosexual HIV infection should scale up male circumcision intervention. Following the scaling up of male circumcision services as a measure of HIV prevention, there has been little uptake of these services in Namibia, especially among men whose culture is not in support of male circumcision. It is not known why men in Windhoek are not taking up male circumcision, and the barriers that prevent men from taking up this intervention have not been identified as yet. A need arised to conduct a study that will measure the knowledge and assess the perceptions and attitudes of the adult population in Windhoek, to ascertain barriers that may inhibit men to uptake male circumcision as well as to find out the influence that partners may have in decision-making, when it comes to male circumcision. On a different note, traditional circumcision is common among the circumcising communities. It raises one's concerns whether there is strict safety measures associated with such practice. Therefore, collaboration between medical and traditional circumcisers is of great importance in ensuring that the procedure is performed safely and risk-free.

1.2 Significance of the study

For the MC programs to operate efficiently, the community needs to understand the importance of uptaking male circumcision. Therefore, adequate dissemination of information pertaining to the purpose and goals of the MC program are of vital importance. In Namibia, it is discovered that there is lack of information on HIV and also on male circumcision services. This study is aimed at finding out the perceptions and attitudes of men and women in Windhoek towards male circumcision. The results of this study may be of great importance to policy makers in the Ministry of Health and Social Services. It will create awareness to people whom the concept of medical male circumcision is not familiar to. It will also contribute to identifying gaps between uncircumcised men and HIV health prevention strategies. Added to that, this study will also contribute to existing awareness programmes which will assist in improving the available male circumcision services. This study will also enrich the researcher's experience in conducting similar studies in future.

1.3 The aim and objectives of the study

The aim of the study is to determine the perceptions of men and women towards male circumcision in order to improve and strengthen the services, therefore, encouraging the uptake of these services in Windhoek.

Objectives:

- To determine the knowledge of men and women towards Male Circumcision
- To determine attitudes of men and women towards Male Circumcision
- To determine perceptions of men and women towards Male Circumcision
- To establish the barriers that inhibit men from accepting Male Circumcision
- To suggest ways to improve the programme to address the barriers to men in relation to Male Circumcision

1.4 Research question

What are the perceptions of men and women towards male circumcision as an HIV prevention intervention in the Windhoek District?

1.5 Method of research

This was a cross-sectional, descriptive study conducted to determine the perceptions of men and women towards male circumcision. Convenient sampling was used to select the participants, and the results were analyzed with the use of SPSS Package, Version 20.

1.6 Structure of the study

Chapter One: This part gives a brief introduction which describes the problem statement and the significance of the study. Chapter one is significant since it gives the content of the whole research study. It also outlines the aim and objectives of the study.

Chapter Two: This chapter covers the literature review. Literature will be reviewed to obtain an in-depth knowledge regarding the research topic. Literature review will also present the findings and conclusions made in previous studies.

Chapter Three: This chapter outlines the methodology which presents how the data was collected and how it was analyzed. It also describes the characteristics of the sample population.

Chapter Four: This chapter reports on the findings and gives detailed analysis of the study.

Chapter Five: This chapter entails discussion of the results drawn from the previous chapter. The conclusion and recommendations also form part of this chapter.

1.7 Limitations of the study

During reporting of the findings, the study was made difficult and almost impossible when the researcher's laptop got stolen and most information was lost. It was a very challenging process to start over again. This delayed timely submission of the study to the supervisor for revision.

The findings of this study cannot be generalized to the whole Namibian population as it only concentrated on male circumcision and not on other HIV prevention strategies. Due to time constraints, the current study used convenience sampling method to obtain an adult population of Windhoek residents. This could have resulted in a probability of biased selection. The tactic of employing a large number of the study sample would have overcome this.

This study was based on self-reported circumcision. The false self-reported status would not have been detected as no clinical examinations were performed during the interviews to confirm the true circumcision status.

Some respondents were initially hesitant to give honest responses as they felt they were being lured to give information that was meant for some purposes, rather than studies, that could be unlawful. To eliminate this and build trust, they were fully explained about the purpose of the study as well as their rights pertaining to the participation in the study.

1.8 Summary

The chapter discussed the background of the study, the problem statement and highlighted the significance of the study. The aim and objectives of the study, research question, method of research, structure of the study and the study limitations were all discussed in this chapter.

Chapter two will discuss the literature review that was consulted in order to give a theoretical basis and an insight into the topic of the study. An in-depth exploration will be done with regard to the historical perspective of male

circumcision, its association with HIV/AIDS, and more importantly, knowledge, attitudes and perceptions towards MC.

CHAPTER II

LITERATURE REVIEW

Literature review is significant to any study as it provides theoretical framework which helps researchers to construct their own studies (Matveev, 2002). This chapter explores the literature according to the objectives of the study.

2.1 Introduction

Male circumcision is the surgical removal of the part of or the whole foreskin (skin fold that covers the glans penis) (Centre for disease control and prevention (CDC), 2008), due to cultural, medical or religious reasons (Aggleton, 2007; Weiss, 2000). Most ecological studies also showed high HIV prevalence in countries where MC is less practised. Age at circumcision and the degree of accessibility are factors that guarantee the effectiveness of MC intervention. The extent to which MC is accepted guarantees the protective effect of MC, once the protective effect is maintained in men, their partners' risk to contract HIV could also be minimal (Westercamp & Bailey, 2006). Namibia has a low percentage of male circumcision (21 percent) compared to other Southern African countries. Male circumcision is only commonly practiced by some groups especially the tribes from Omaheke (57%), Kunene (52%) and Otjozondjupa (42%) regions. These regions reported a low HIV prevalence rate according to sentinel surveillance. The rest of the regions with low levels of male circumcision have relatively high prevalence rate (MOHSS, 2009).

2.2 History, Successful studies, and acceptability of male circumcision

Male circumcision began during the ancient Egyptian era, and it has been practised as a ritual (Aggleton, 2007). This practice came into Public Health towards the end of the 19th century. In addition, male circumcision was more practised among Jews and Muslims as part of their religious values but was practised less in Christianity belief. Circumcision started in the biblical era in which God set a covenant between Him and Abraham. Every male child had to be circumcised on the eighth day after birth (Genesis 17: 9-14). In the USA, Canada and Australia, the practice of circumcision is more of hygienic and therapeutic reasons. In Africa, it was perceived as an initiation into manhood (Majaja et al., 2009). Although it has been practised in the past for various reasons listed above, male circumcision is nowadays considered as a preventive medical intervention against heterosexual HIV infection (Van Dam & Anastasi, 2000).

Meta-Analysis of observational studies that included four ecological studies, 35 cross-sectional studies, 1 partner study, 3 Cohort studies, 14 prospective studies (comparatively 0.52- 0.18 risk for HIV infection in circumcised men) and 3 Randomised Controlled Trials were conducted, the latter being the most recent one which was

conducted in Kisumu (Kenya), Rakai (Uganda) and Orange Farm (South Africa) (CDC, 2008). These trials concluded protection rate of 53%, 51% and 60%, respectively (Dickson, 2010). In 2005, the first Randomised Controlled Trial was conducted whereby 3274 uncircumcised men in South Africa, aged 18-24 years were included in the study. These men were randomly assigned whether to be circumcised or not and they were followed up after a certain period to determine their possibility of having acquired HIV (MOHSS, 2010). There were 20 HIV infections in the intervention group, compared to 49 HIV infection in the control group RR of 0.40 (95% CI: 0.24%-0.68%). This was therefore concluded that Male Circumcision has the protective effect of 60% against HIV (Pai & Kaufman, 2012). The trial was stopped in 2005 and 2006 after the interim analyses found a significant protective effect (CDC, 2008). Kangudie, (2007) highlights that the observational studies that were conducted over more than two decades presented incompatible results with regard to the protective effect of male circumcision. As a result, the 3 Randomised Trials were proved more reliable.

Acceptability of male circumcision was high in the Central and Southern Malawi, especially in areas where there was a high concentration of Muslim communities but was very low in the Northern region where it was not traditionally practised (Ngalande, 2006). The level of acceptability of circumcision was reviewed in 9 countries of which the proportion of 65% of uncircumcised men were willing to be circumcised while 69% women were willing to have their partners circumcised. 71-81% men and women were willing to have their sons circumcised (Westercamp & Bailey, 2006). Westercamp and Bailey maintained that the acceptability of male circumcision in the non-circumcising population may play a major role in the effectiveness of the male circumcision intervention.

2.3 Biological association of male circumcision and HIV

According to de Vincenzi and Mertens 1994, 12 retrospective studies were conducted that assessed the risk factors for HIV infection, 4 of these studies revealed a relatively high relationship between lack of circumcision and HIV infection, as well as between lack of circumcision, high risk of HIV infection and high rate of STIs in men. Longitudinal study conducted (Cameron as cited in de Vincenzi & Mertens, 1994) on men who have sex with prostitutes showed that uncircumcised men were likely to contract HIV 8.2 times than circumcised men. In Kenya, HIV prevalence in uncircumcised men was reported to be 13.9% compared to 4.1% of circumcised men (Obure, Nyambetha, Oindo & Kodero, 2009).

Weiss, Quigley & Hayes, 2000, described male circumcision to be associated with significant reduced risk of HIV infection among men in sub-Saharan Africa, particularly those at high risk of HIV. Their study results suggested that consideration should be given to the acceptability and feasibility of providing safe services for male circumcision as an additional HIV prevention strategy in areas of Africa where men are not traditionally circumcised.

However, their study revealed that circumcision may also directly protect against HIV, as viral entry may occur through micro-traumatic lesions or mini-ulcerations of the foreskin or through trauma to the non-keratinized inner mucosal surface of the foreskin. They further explained how a higher density of Langerhans cells contained in the foreskin than the urethra or rectum may be primary target cells for HIV transmission. Therefore, circumcision causes the glans to harden (thus called “natural condom”) and become resistant to tears and bruises that facilitate entry of HIV pathogens (de Vincenzi & Mertens, 1994). The authors also explained how genital ulcers may also be less easily recognized in uncircumcised men, thus delaying treatment and increasing susceptibility to HIV. In support for this, Van Dam & Anastasi (2000) maintained that the foreskin favours the survival of bacteria and viruses, making the skin underneath susceptible to tears, abrasions and scratches. Therefore the presence of such lacerations may increase the risk of HIV acquisition. Male circumcision reduces Genital Ulcerative Diseases (GUD) by 47%, thus reducing the risk for HIV transmission. Protection against urethral infections has not been identified (Kangudie, 2007).

Studies discovered that in Africa, non-circumcision countries are Democratic Republic of Congo, western part of Kenya, Rwanda, Burundi, Zambia, Zimbabwe, Namibia, Malawi, South Africa, parts of Botswana and Mozambique. In addition, Western Africa such as Nigeria has been recorded to have high circumcision rate (Weiss et al., 2000). In Uganda, male circumcision is at 20% prevalence, and it is commonly practised among the Muslims, the Bamba (1%), and the Sabiny and Bagishu tribes (3%). Despite the high number of population of about 12 million people in Malawi, male circumcision prevalence is only 13%. Zambia has a population of 10.3 million but only 20% of the male population is circumcised (CMMB, 2007).

2.4 Knowledge, attitudes and perceptions towards MC

A cross-sectional biomedical survey was conducted by Lissouba, Taljaard, Rech, Dermaux-Msimang, Legeai, Lewis, Singh, Pure, & Auvert, (2011) that assessed an association of adult male circumcision and the level of acceptability among South Africa community. The survey employed 1198 men aged from 15-49 from Orange farm to which knowledge about MC and HIV questions were asked. It was discovered that men had fairly good knowledge about MC and HIV acquisition. Most respondents knew that circumcised men could still acquire HIV through unsafe sexual practices. An uptake of MC among uncircumcised men of 58.8% was established.

Knowledge about HIV/AIDS plays a vital role in risk reduction as sufficient knowledge may bring about long-lasting behaviour change. Based on this, a survey conducted in 64 countries showed that only 40% of men in the age group have sufficient and comprehensive HIV knowledge, compared to 38% of women of the same age group (Global Report, 2008). For one to have adequate knowledge on HIV and male circumcision there is a need to have knowledge of comprehensive HIV prevention. This would facilitate adoption of positive attitude towards male circumcision.

A study by Mavhu, Buzdugan, Langhaug, Hatzold, Benedikt, Sherman, Laver, Mundida, Woelk & Cowan, (2011), that assessed prevalence and factors associated with knowledge of and willingness for male circumcision in rural Zimbabwe, whereby females constituted 64% of the sample, found a relatively low level of knowledge towards MC benefits among the respondents, with positive attitudes as well as acceptability of MC and its health benefits of about 52%.

According to the study conducted in Malawi on knowledge attitudes and benefits of male circumcision, young men and women demonstrated good knowledge about HIV and male circumcision. Most women also exercised the willingness to take their children and partners for circumcision (Ngalande, Bailey, Levy, Kaponda, Kawala, Mhango & Chitsulo, 2004).

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 (when MC was done in childhood), doctors, individuals and sexual partners (Pappas-DeLuca et al., 2009). Furthermore, Pappas DeLuca et al. (2009), narrated that in Namibia, a qualitative research study that assessed the attitudes towards male circumcision in Namibia indicated negative attitudes and perceptions in non-circumcising areas such as Caprivi and Ohangwena region. Older men felt they were too old for circumcision and they did not see any need to uptake while some uncircumcised men in non-circumcision 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 have positive attitudes towards male circumcision especially those who are in support of the health benefits associated with circumcision (Pappas- DeLuca et al., 2009). More studies conducted on perceptions towards male circumcision concluded negative perceptions towards circumcision performed after childhood (Wambura, Mwanga, Mosha, Mshana, Mosha & Changalucha, 2011). A longitudinal study was conducted in Kenya to check the perceptions of female partners of recently circumcised men in Nyanza Province in Kenya. Such women have been in relationships with the circumcised men before and after their circumcision. It was found out that all females were satisfied with their partners' decisions to uptake circumcision, and high rate (91%) of women 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.

Male circumcision as a measure of HIV prevention may not be efficient when men believe that they will be fully protected from HIV (Halperin & Bailey, 1999). The concerns are there that the possibility of behavioural disinhibition may expose them to the risks of acquiring HIV. Several studies reported an increased potential behavioural disinhibition among circumcised men than in uncircumcised men (Westercamp & Bailey, 2006).

In addition to perceptions, several studies, according to Scott et al., 2006 (as cited in Westercamp & Bailey (2006), have found a high proportion of men and more women who had a belief that circumcised men enjoyed sex more

than uncircumcised men. These findings were supported by the findings of the study conducted in South Africa that women were eight times more likely to advocate for circumcision if they believed that circumcised men enjoyed sex more than uncircumcised men, and six times more likely to regard it if they believed that women enjoyed sex more with circumcised men.

2.5 Benefits of circumcision

Male circumcision is regarded to have several benefits. There is enough evidence that male circumcision reduces the risk of HIV infection provided that it is practised together with the comprehensive HIV protection package, therefore MC alone does not protect against HIV infection (MOHSS, 2007). Apart from partial protection against HIV, other benefits include reduction of Urinary Tract Infections (UTI) in infants and small children, correction of penile anomalies, reduced risks for invasive penile cancer, reduction in STIs infections such as Chancroid, Human Papilloma Virus (HPV) thus reducing risks of cervical cancer in women (Kangudie, 2007). Furthermore, male circumcision facilitates hygiene, promotes cultural integration, as well as facilitating easier condom use.

2.6 Complications associated with male circumcision

Although male circumcision has a benefit package, there are negative effects associated with its procedures. Complications involved can be pain, infection, in case where circumcision is performed in a less hygienic setting, mutilation, haemorrhage, impaired healing processes and even death (de Vincenzi & Mertens, 1994). Proper healing may be inhibited by early initiation of sexual intercourse before the wound is completely healed which also increases the risk of contracting HIV. Seldomly, post-surgical complications may be more than the benefits of circumcision (Kangudie, 2007).

Some studies indicated reduced penile sensitivity as well as altered sexual performance to be among the complications of circumcision, while some men reported no change at all (CDC, 2008).

2.7 Barriers to MC acceptability

A study conducted in Tanzania among police officers in Dar es Salaam on the perceptions on male circumcision as a preventative measure against HIV infection and considerations in scaling up of the MC services ascertained that there were concerns about cost involved with MC, as well as cleanliness of instruments used in both traditional and medical settings. Cost and surgical safety were also listed by Lissouba et al., 2011 to be the commonly- reported barriers in African communities that inhibit MC uptake. The study conducted in Kenya also supports that there are perceived complications that inhibit men from accepting male circumcision. In addition to what was previously mentioned, Obure et al. (2009) added that sexual disinhibition, fear of discrimination, costs involved, reduced sexual pleasure and loss of cultural identity are among the factors that inhibit the efficacy of male circumcision

services. Once tackled through provision of free-of-charge medical male circumcision and the roll-out of safe and effective male circumcision services, the level of acceptability tends to increase. Other factors may however inhibit or promote the willingness to uptake MC, but the effect could be reversed by improved communication strategies targeted to reach out remote communities. WHO in collaboration with UNFPA, UNICEF, the World Bank and UNAIDS Secretariat advocated for countries offering male circumcision services to ensure that MC is carried out safely by well-trained practitioners in sanitary setting with strict measures of confidentiality, informed consent prior to procedure, proper counselling with regard to risk reduction and safety (World Health Organization (WHO), the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), the World Bank & the UNAIDS Secretariat, 2006).

2.8 Summary

The chapter reviewed existing literature that is in light with the study topic. Conclusion could be drawn from this that the benefits of male circumcision outweigh the complications associated with it. Once performed safely, acceptability of MC could increase among non- circumcising communities. Knowledge has an effect on attitudes; the more knowledge people have on HIV and male circumcision, the more they are likely to develop positive attitude towards MC. This can also have an influence on them in attaining positive perceptions towards MC. Chapter three will discuss the methodology of the study.

CHAPTER III

METHODOLOGY

3.1 Introduction

Methodology refers to instruments and style used to construct and generate research techniques (Christensen, Johnson & Turner, 2011). However, this section will describe in details the methods that were used in the study according to the research design, study setting, study population, sampling method, instrumentation, data management and analysis. Ethical consideration procedure will also be discussed in this chapter.

3.2 Research design

This is a descriptive, cross-sectional survey conducted in Windhoek from August to October 2012 that involved a quantitative method to measure and analyse the level of knowledge, attitude and perceptions of adult men and women as well as barriers to MC. A quantitative paradigm was chosen because it provides high level of measurement as well as high degree of reliability (Matveev, 2002). The study also employed anonymous close-ended questionnaires amongst the respondents. A self-administered questionnaire was used to collect data. A questionnaire is a self-report data collection form that is filled out by research participants (Christensen, Johnson & Turner, 2011). The selection of the data collection tools was made based on the method that was used to collect data, and on the objectives of the study.

3.3 Study Setting

The study was conducted in Windhoek, the capital city of Namibia. This area is situated in the centre of the country. It occupies the whole Khomas Region. Its dimensions are 284 809 square kilometres (National Planning Commission, 2011). It is home to about 300 000 people which makes it to be Namibia's most densely populated area (Central Bureau of Statistics, 2004) since this population occupies about 15.9 per cent of the country's overall population (Ministry of Labour and Social Welfare, 2008). Windhoek is a multi-cultural and diverse city.

3.4 Study population

In research, a research population refers to a large collection of individuals that would need to be studied in a scientific world (Christensen et al., 2011). Conversely, due to limited time and scarcity of resources, the study concentrated only on the adult population, and the sample size was limited to 250 adult men and women aged 18 years and older, who reside in Windhoek or who have stayed in Windhoek for a period of at least 6 months or longer. In Namibia, according to the Legal Assistance Centre report (LAC), the age of majority is 21 years, so, an

adult is someone who has attained the age of 21. However, the UN Convention on the Rights of the Child and the African Charter on the Rights and Welfare of the Child defines a child as someone below the age of 18 years. This study included the population of 18 years because according to the National HIV Sentinel survey indicated an HIV prevalence of 5.4% among pregnant women aged 15-19 years (Ministry of Health and Social Services, 2012). This suggests that by the age of 18, the majority should have already been sexually active, and it was considered necessary to include them in the sample for their own benefits. Participants should have been able to understand at least one of the following languages: Oshiwambo, Afrikaans and English.

3.5 Sampling method

Considering the large number of the sample population, convenience sampling was used to select the participants. Every man and woman who met the requirements of the target population qualified to participate in the study. The study was conducted in five residential areas to ensure cross-sectional societal participation. The areas were: Khomasdal, Katutura, Windhoek North, Eros and Kleine Kuppe. Men and Women visiting Out-Patient Departments (OPDs) of Katutura State Hospital and Windhoek Central Hospital were no longer included in the study since the sample population was achieved.

3.6 Instrumentation

An anonymous structured questionnaire was used to interview individuals. The questionnaire was adapted from the study conducted in Dominican Republic on acceptability of male circumcision for the prevention of HIV/AIDS in Dominican Republic. The English version of the questionnaire was translated into Oshiwambo and Afrikaans, the commonly spoken languages in Windhoek. Each individual was interviewed in any of the three languages. The questionnaire was composed of closed-ended questions. It was structured on social demographic questions, status of circumcision, knowledge of male circumcision, attitudes and perceptions towards male circumcision, and barriers to male circumcision.

3.6 Data management

3.6.1 Data entry

After data collection, the questions were entered one by one in SPSS.

3.6.2 Data cleaning

The questionnaires were checked for inconsistency, irrelevant responses and missing data.

3.6.3 Data quality

Data collection was done with the assistance of five University of Namibia (UNAM) students (Details provided in Appendix 8) who were trained in details about the questionnaire and the MC concept. Assistants were asked about their own doubts towards the questionnaire and they were explained to their satisfaction. Some of the likely questions thought to be asked by the participants were also explained to data collection assistants so that data collection would be smooth and timely. All the data collection assistants were in direct contact with the researcher. Any queries by the participants with regard to the questionnaire were explained by the researcher telephonically. Data collection was done at the participants' convenient date and time. Pilot test was conducted among twenty employees of Namibia Institute of Pathology (NIP) to judge the completeness of the questions and to know that the participants could understand the questions clearly. Accordingly, ambiguous questions were rephrased. Data collected by the assistants were submitted to the researcher on a weekly basis.

3.6.4 Data transformation/Recoding

The process of data recoding was commenced by with creating outcome variables. The outcome (dependant) variables for this research are perceptions, knowledge and attitudes. During the contraction of the questionnaire, there were no specific questions on these outcome variables except for attitudes. This means that knowledge and perceptions were collected in an indirect way. In other words, several questions related to MC knowledge and MC perceptions were carefully constructed. After data collection, the two indices namely knowledge and perceptions were created. All knowledge- related items/questions were then grouped together to construct a knowledge index. Knowledge- related items required “yes” and “no” as well as “agree” and “do not agree” responses. Every “yes” response was rated among the “**Knowledgeable**” while “no” responses were regarded as “**Not knowledgeable**”. The same was done for Perception index. After creating the indices, they were further recoded into binary variables to prepare them for logistic regression analysis. The Knowledge index was further recoded into a true binary variable as follows: 0=Not knowledgeable, 1=Knowledgeable. The perception index was also further recoded into a true binary variable (Positive=1 and Negative=0).

Although attitude is not an index, some recoding was done to prepare it for analysis. Determination of level of attitudes towards MC was based on one question in the questionnaire asking whether respondents would recommend their sons to be circumcised. “Yes” responses were regarded as “Positive=1” and “no” responses were rated as “negative=0”.

Recoding for Explanatory (independant) variables:

Some explanatory variables were also recoded to simplify the analysis. That means some variables were recoded from continuous variables to categorical variables. Some were recoded from string variables to nominal, scale or ordinal measures.

Hence all the responses to the questions in numerical values are as follows:

Gender: Male=0

Female=1

Age was recoded into age groups:

<21

21-25

26-30

31-35

36-40

41-45

46-50

>50

3.7 Data Analysis

As defined by Johnson, (2011), data analysis is a process that involves cleaning, transforming and remodelling the data in order to reach a solution to a problem.

Data were captured using Statistical Package for Social Sciences (SPSS) version 20. Variables were coded. Data was tabulated, summarized and frequencies were calculated and Chi-square was used to determine the association between knowledge, attitude and perceptions. Logistic Regression Analysis was used to analyse dichotomous variables. The response rate per question ranges between 98%- 100%. Graphs and tables were used to present the results.

3.8 Ethical consideration

Ethical clearance was sought and obtained from the ethical committee of Stellenbosch University (Protocol Number HS821/2012) and Ministry of Health and Social Services (MOHSS) of the Republic of Namibia (reference number: 17/3/3). Respondents who met the requirements of the study were explained to the objectives of the study in their preferred languages. Informed consent was taken from all participants. Participation was completely voluntary. Participants were informed of their rights, and that they could withdraw from the study anytime if they so wished. Due to the nature of the research topic, some questions could have been sensitive to the respondents. However, they were informed prior to participation that should they feel uncomfortable to answer some questions, they should feel free to skip them and continue with the ones they are comfortable with. All information obtained was dealt with confidentially and completely anonymously.

3.9 Summary

The chapter discussed the logical process that was applied to obtain the data from respondents. The work plan according to the steps how from research design to how the data was analysed were all discussed here. The study setting, study population, sampling method, instrumentation, data management and data analysis were all discussed here. Chapter Four will report the findings of the study.

CHAPTER IV

STUDY FINDINGS AND ANALYSIS

After analysis of the data, the report ought to be produced to make the study more concise and easy to understand. This chapter deals with the presentation, interpretation and analysis of the data. It is composed of two parts: Data exploration and brief observation and Analysis. Charts and tables were used to represent the results.

4.1 Data exploration and brief observation

The contents of this section are socio-demographic information, knowledge, attitude and perceptions towards the benefits of male circumcision. Since knowledge, attitudes and perceptions are the outcome variables, some selected explanatory variables were used for cross-tabulation against the outcome variables. The explanatory variables were stratified into socio- demographic, economic and cultural strata.

Futhermore, the MC acceptability, awareness, barriers and reasons for MC were also assessed. All explanatory variables were selected based on both theory, empirical arguments, and importantly, based on the objectives of this research. Data exploration using frequencies or univariate analysis was conducted to understand the data and the population distribution among the variable of interest.

4.1.1 Socio-demographic and economic information

The study assessed the perceptions of adult men and women towards male circumcision as an HIV prevention strategy in the Windhoek District. A total number of 250 participants took part through structured interviews, using self-administered questionnaires. The study ensured an equal representation of genders of 125 men and 125 women aged 18 years and older. The demographic and economic variables will be presented with the use of figures and tables.

4.1.1.1 Age group distribution

The age distribution of the respondents was classified into age groups and presented in the chart as follows:

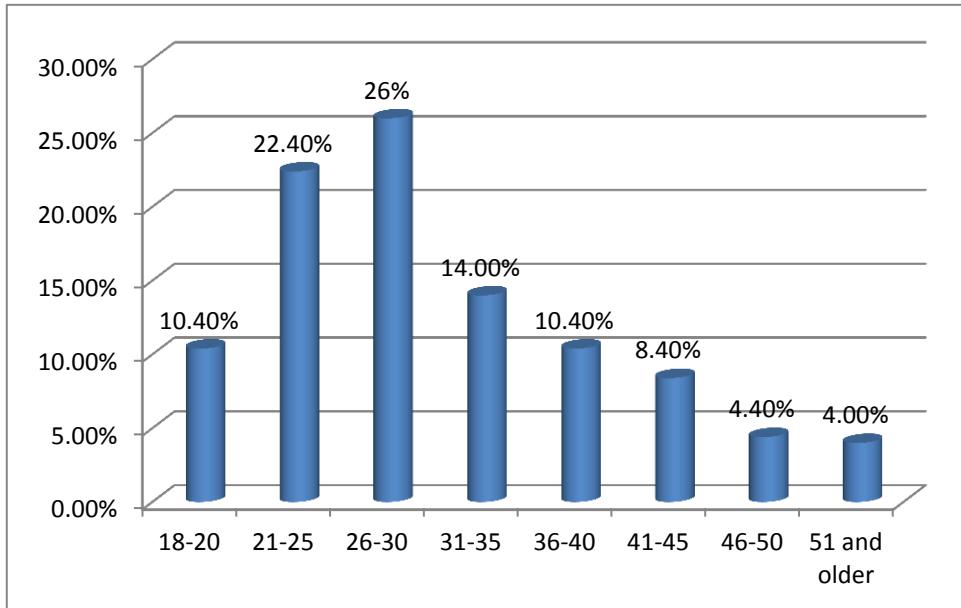


Figure 1: Age group distribution

According to figure 1 above, 26 respondents were in the 18-20 age group, which represented 10.4%. The majority of the respondents were from the 26-30 age group which had a number of 65 respondents represented by 26%. Participation was relatively low among the age group of 51 years and older.

4.1.1.2 Gender Distribution

The illustration below presents gender distribution.

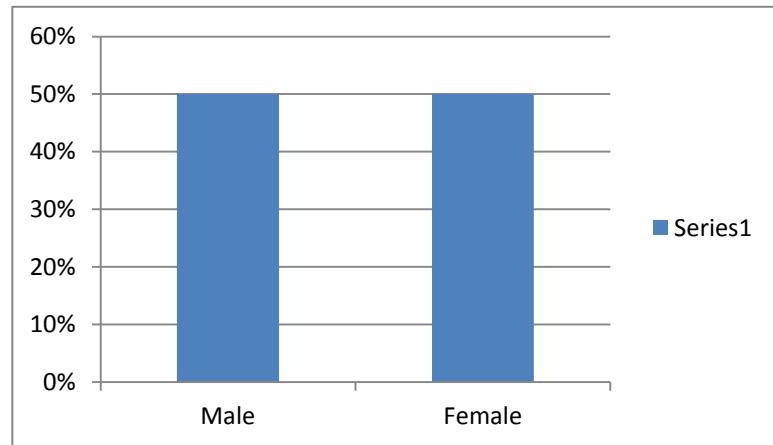


Figure 2: Gender distribution

As shown in figure 2 above, the study ensured equal participation of 50% from each gender. In other words, the number of male respondents, which is 125, equated that of female respondents.

4.1.1.3 Distribution by Marital Status

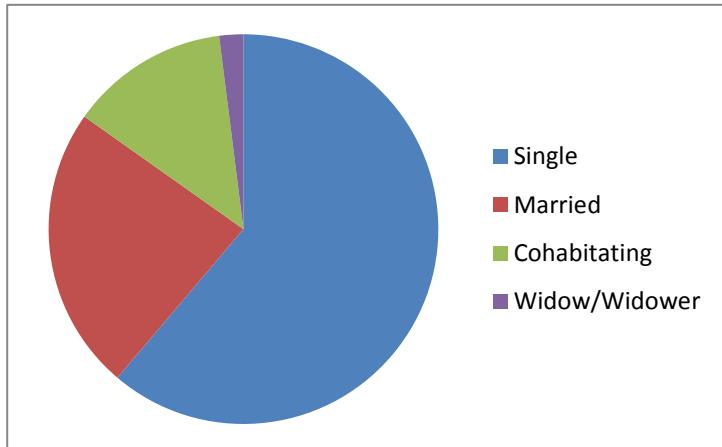


Figure 3: Distribution by marital status

Figure 3 shows the distribution by marital status. 61.2% of the participants were single, 23.6% were married, and 13.2% were cohabitating while 2% were widow/widowers. Participants who are divorced were included in the category of “single”.

4.1.1.4 Distribution by Language

The table below shows distribution of the respondents by language.

Table 1: Distribution by language

Language	Frequency	Percent
Oshiwambo	117	46.8
English	28	11.2
Herero	29	11.6
Afrikaans	36	14.4
Damara/Nama	20	8
Other	20	8
Total	250	100

Respondents were drawn from several ethnic groups as shown in Table 1 above. The Oshiwambo dominated participation, 46.8%. Oshiwambo is the predominant ethnic group in Namibia. 14.4% were Afrikaans-speaking participants, 11.6% was for Herero while 8% was for Damara/Nama speaking respondents. The representation of those who only speak English, among all the languages, was 11.2%. The other languages which were not listed in the questionnaire were classified as “Other”, and they made up 8% of the representation.

4.1.1.5 Distribution by religion

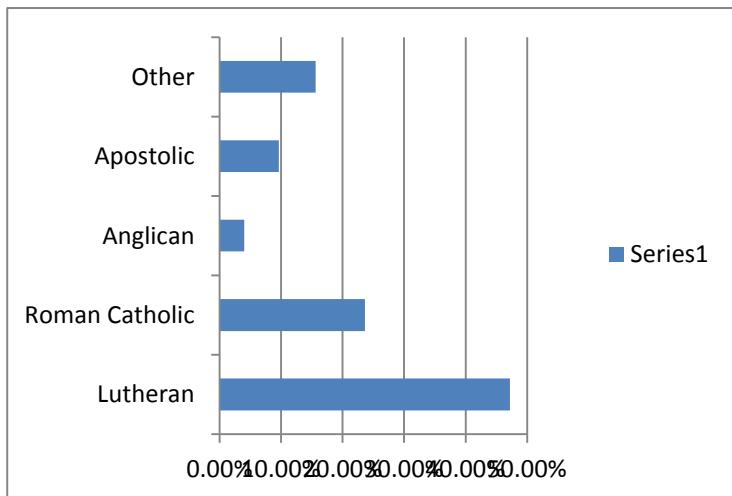


Figure 4: Distribution by religion

As presented in figure 4 above, all the participants were Christians. The majority (47.2%) were Lutheran while the minority (4%) was Anglican.

4.1.1.6 Distribution by education

The table below presents respondents' level of education.

Table 2: Distribution by Education

Level of Education	Frequency	Percent
Primary	15	6
Secondary	112	44.8
Tertiary	123	49.2
Total	250	100

As shown in Table 2 above, the majority (49.2%) had reached tertiary level of education while 15 respondents (12%) were primary drop-outs.

4.1.1.7 Distribution by employment

The table below shows respondents' employment status.

Table 3: Distribution by employment

Employment Status	Frequency	Percent
Employed	160	64
Unemployed	44	17.6
Student	46	18.4
Total	250	100

As far as employment is concerned, the majority (64%) was employed, 17.6% were unemployed, and 18.4% were students as shown in the Table 4 above.

4.1.2 Circumcision status, programmatic and preference factors and age at circumcision

Male respondents were asked to reveal their circumcision status and to give information with regard to age at which circumcision was performed, and where it was performed. The table below shows circumcision status.

4.1.2.1 Circumcision status N=125

The table below shows circumcision status.

Table 4: Circumcision status

	Frequency	Percent
Circumcised	62	49.6
Uncircumcised	63	50.4
Total	125	100.0

Table 4 indicates that 62 male participants (49.6%) were circumcised, while 63 (50.4%) were not circumcised.

4.1.2.2 Place of circumcision

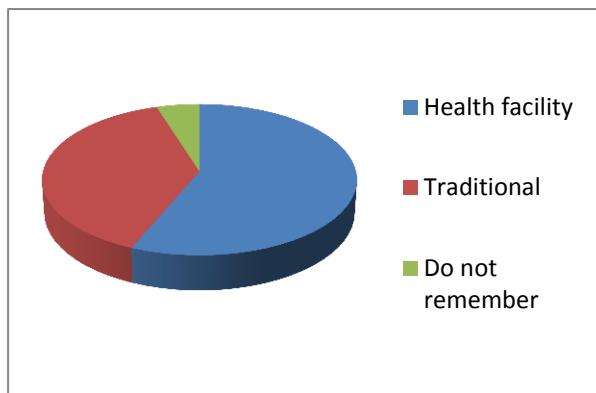


Figure 5: Place of circumcision N=62

As it is indicated in Figure 5, 35 participants (56.4%) were circumcised in health facilities, 24 (38.7%) were circumcised traditionally, while 3 participants (4.9%) could not remember where they were circumcised.

4.1.2.3 Age at circumcision

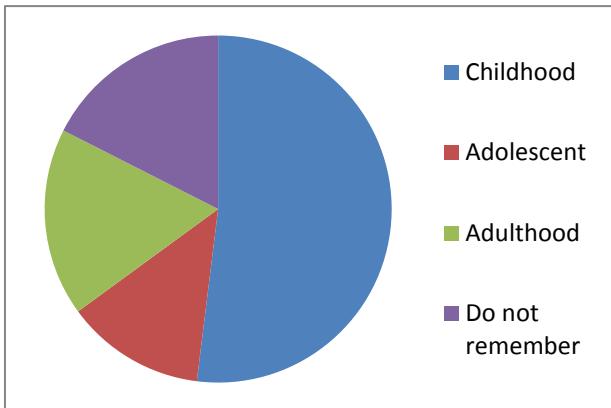


Figure 6: Age at circumcision N=62

Figure 6 shows that the majority (51.6%) was circumcised during their childhood, (12.9%) were circumcised during their adolescent years, 17.4% were circumcised in adulthood, and another 17.4% could not remember at what age they were circumcised.

4.1.2.4 Reasons for circumcision

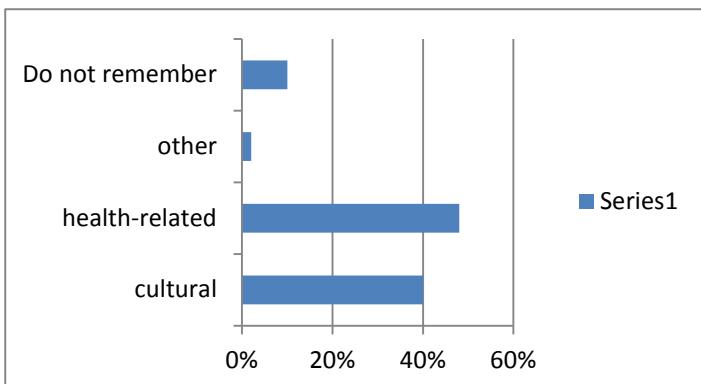


Figure 7: Reasons for circumcision

Figure 7 above shows that among the male respondents who were circumcised, 25 (40%) were circumcised for cultural-related reasons, while 30 (48%) were circumcised for health-related reasons. One respondent (2%) was circumcised for “other” reasons, religious reason, to be specific.

4.1.2.5 Reasons for not participating in circumcision

Among 63 male respondents who were not circumcised, 42 (66.7%) showed their willingness to get circumcised, given an opportunity to do so. 21 (33.3%) respondents stated that they would not participate in circumcision. The chart below shows reasons for not participating in circumcision.

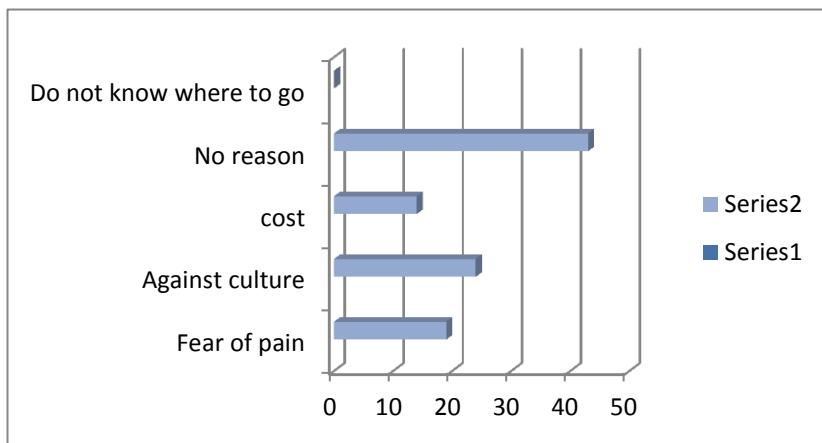


Figure 8: Reasons for not participating in circumcision

Figure 8 shows that amongst male respondents who will not get circumcised, four (19%) stated that they are afraid of pain, three (14%) due to cost, nine (43%) stated no reasons, and five (24%) said it was against their culture. None of the respondents said they did not know where to go for circumcision.

4.1.2.6 Recommended facilities for circumcision

Table 5: Recommended facilities for circumcision

Facility	Frequency	Percent %
Health facilities	213	85.2
Traditional setting	19	7.6
Both	4	1.6
Do not know	13	5.2
Missing	1	0.4

As shown in Table 5, the majority (213, which accounts to 85.2%) recommended circumcision to be carried out in health facilities (medical circumcision) while 19 (7.6%) preferred traditional circumcision to medical MC. The least majority (1.6%) recommended both medical and traditional circumcision.

4.2 Bivariate analysis (Cross- tabulation with outcome variables)

The outcome variables (knowledge, attitude and perceptions) were cross tabulated against socio-cultural, demographics, economics, barriers, and other relevant programmatic factors related to MC. This was done to establish whether there is an association between outcome variables (dependant variables) and explanatory variables (independent variables).

4.2.1 Knowledge of the benefits of male circumcision

This part looks into knowledge according to the responses that the respondents gave.

4.2.1.1 Representation of awareness of MC among the respondents

The table below shows the level of awareness of male circumcision among the respondents.

Table 6: Awareness of MC among the respondents

Frequency (n)		
Yes	238	95.2
No	10	4.0
Missing	2	0.8
Total	250	100

The majority (95.2%) have heard of male circumcision before. Four percent did not know what circumcision is. About 0.8% did not report their awareness of MC.

4.2.1.2 Knowledge of MC and its association with HIV and STIs

The chart below shows knowledge with regard to its association with HIV and STIs.

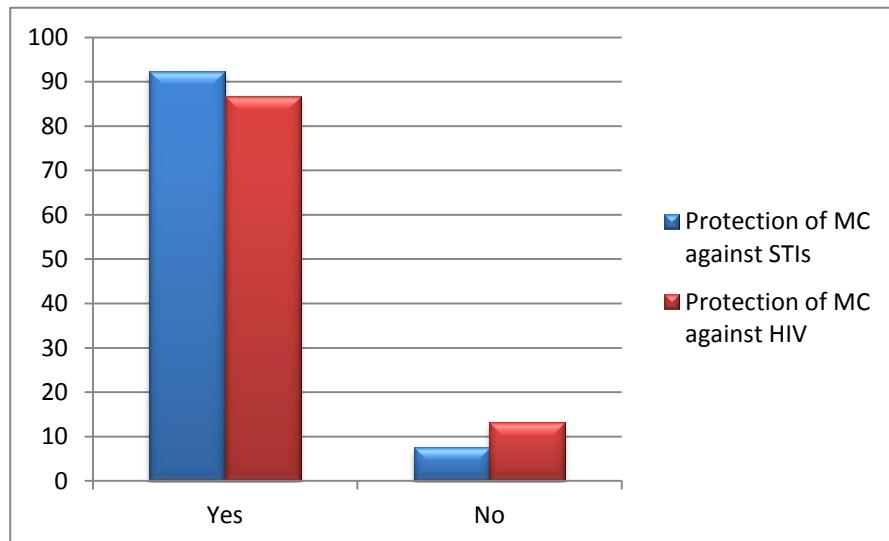


Figure 9: Knowledge of MC and its association with STIs and HIV

Figure 9 above shows that 92.4% of the respondents have heard that MC reduces the risks of contracting HIV. 7.6% were ignorant about that. On the same note, 86.8% heard that MC reduces the risks of HIV acquisition while 13.2% were not familiar with the statement.

4.2.1.3 Knowledge and demographic variables

Table 7: Knowledge and demographics

Demographic Variable	N			%		
	*Dont know	*Know	Total	Dont know	Know	Total
Gender						
Male	29	96	125	23.2	76.8	100.0
Female	29	96	125	23.2	76.8	100.0
Total	58	192	250	23.2	76.8	100.0
Marital status						
single	36	117	153	23.5	76.5	100.0
married	13	46	59	22.0	78.0	100.0
living together	6	27	33	18.2	81.8	100.0
widow/widower	3	2	5	60.0	40.0	100.0
Total	58	192	250	23.2	76.8	100.0
Age group						
<21	12	14	26	46.2	53.8	100.0
21-25	16	40	56	28.6	71.4	100.0
26-30	11	54	65	16.9	83.1	100.0
31-35	2	33	35	5.7	94.3	100.0
36-40	7	19	26	26.9	73.1	100.0
41-45	7	14	21	33.3	66.7	100.0
46-50	1	10	11	9.1	90.9	100.0
>50	2	8	10	20.0	80.0	100.0
Total	58	192	250	23.2	76.8	100.0

*Do not know= Not knowledgeable, Know= Knowledgeable

Total number of 250 participants (125 males and 125 females), of this number 76.8% of the male and female respondents know about male circumcision very well. 23.2% of the participants are ignorant about male circumcision. People living together, single and married are well informed (knowledgeable) about MC (81.8%,) 60% of widowed respondents are not knowledgeable about the benefits of MC. Respondents above the age of 21 years appear more knowledgeable of MC and its benefits. Respondents below 21 years (46.2%) are more ignorant about benefits of MC.

4.2.1.4 Knowledge and cultural variables

Table 8: Knowledge and cultural variables

Cultural Variable	N			%		
	Dont			Dont		
	know	Know	Total	know	Know	Total
Language						
Oshiwambo	20	97	117	17.1	82.9	100.0
English	6	22	28	21.4	78.6	100.0

Herero	7	22	29	24.1	75.9	100.0
Afrikaans	13	23	36	36.1	63.9	100.0
Damara/Nama	9	11	20	45.0	55.0	100.0
Other	3	17	20	15.0	85.0	100.0
Total	58	192	250	23.2	76.8	100.0
Religion						
Lutheran	22	96	118	18.6	81.4	100.0
Roman Catholic	17	42	59	28.8	71.2	100.0
Anglican	2	8	10	20.0	80.0	100.0
Apostolic	6	18	24	25.0	75.0	100.0
Other	11	28	39	28.2	71.8	100.0
Total	58	192	250	23.2	76.8	100.0

Table 4.5 shows that knowledge among Damara/Nama is relatively low (55%) compared to other ethnic groups who are more knowledgeable on benefits of male circumcision. As shown in the table, more knowledge prevails among the Lutherans (81.4%), with the Roman Catholics being less knowledgeable. Overall, most religious groups have good knowledge (76.8%), but 23.2% still do not possess enough knowledge on male circumcision and its benefits.

4.2.1.5 Knowledge and Socio-economic variables

Table 9: Knowledge and socio-economic variables

Socio-Economic Variable	N			%		
	Dont know	Know	Total	Dont know	Know	Total
Education						
Primary	5	10	15	33.3	66.7	100.0
Secondary	29	83	112	25.9	74.1	100.0
Tertiary	24	99	123	19.5	80.5	100.0
Total	58	192	250	23.2	76.8	100.0
Employment						
Employed	34	126	160	21.3	78.8	100.0
Unemployed	10	34	44	22.7	77.3	100.0
Student	14	32	46	30.4	69.6	100.0
Total	58	192	250	23.2	76.8	100.0

All respondents indicated that they have knowledge about MC and its benefits. More knowledge prevailed among the tertiary educated respondents (80.5%), followed by secondary educated respondents (74.1%) and then respondents with primary education (66.7%). Most of participants who are employed, unemployed and student are well informed about MC (76.8%). However 23.2% of these groups do not have the necessary knowledge.

4.2.1.6 Knowledge by circumcision status

The table below shows knowledge by circumcision status.

Table 10: Knowledge of MC by circumcision status

Male circumcision	N			%		
	Don't			Don't		
Status	Know	Know	Total	Know	Know	Total
Uncircumcised/not applicable*	45	143	188	23.9	76.1	100.0
circumcised	13	49	62	21.0	79.0	100.0
Total	58	192	250	23.2	76.8	100.0

*Not applicable represents female respondents

The findings indicated in the Table 10 present that 79% of male participants who are circumcised have knowledge with regard to male circumcision and its benefits, while 21% do not have good knowledge towards MC. 76.1% of uncircumcised and female participants also showed that they have knowledge towards MC, compared to 23.9% of the same group who are not knowledgeable about the benefits of MC. This suggests that the knowledge about MC is the same among circumcised men and uncircumcised men and women (76.8%).

4.2.1.7 Knowledge by place of circumcision and preferred facility for circumcision

The table below presents the findings of knowledge among respondents with regard to place where circumcision was performed and preferred facility for circumcision.

Table 11: Knowledge by place of circumcision and preferred facility

Where circumcision was performed	N			%		
	Dont Know	Know	Total	Dont Know	Know	Total
Hospital/Health Facility	8	27	35	22.9	77.1	100.0
Traditional	5	19	24	20.8	79.2	100.0
Do not know	0	3	3	0.0	100.0	100.0
Not Applicable*	45	143	188	23.9	76.1	100.0
Total	58	192	250	23.2	76.8	100.0
Preferred facility for circumcision						
Health facility	44	169	213	20.7	79.3	100.0
Traditional	5	14	19	26.3	73.7	100.0

setting	1	3	4	25.0	75.0	100.0
Both	1	3	4	25.0	75.0	100.0
Do not know	7	6	13	53.8	46.2	100.0
Missing	1	0	1	100.0	0.0	100.0
Total	58	192	250	23.2	76.8	100.0

*Not Applicable represents female respondents

As shown in Table 11 above, 77.1% of the participants who were circumcised in health setting have good knowledge but more participants (79.2%) who were circumcised traditionally have better knowledge. 100% of the participants who do not remember where circumcision was performed have good knowledge about male circumcision and the benefits associated with it. Of those who prefer circumcision to be carried out in health facilities, 79.3% are knowledgeable towards male circumcision but those who do not know where circumcision should be carried at, have very little knowledge (46.2%) about the benefits of male circumcision.

4.2.2 Attitudes towards the benefits of male circumcision

There was one question on attitude towards male circumcision that assessed the responses of the participants. The question asked whether participants would recommend their sons to be circumcised. The level of attitude was presented per socio-demographic variables. Those who said “yes” were regarded as having positive attitude towards MC, whilst participants who said “no” were regarded as having negative attitude towards MC.

4.2.2.1 Attitude by demographic variables

The table below presents the frequency of attitudes with Demographic Variables, namely Gender, Marital status and Age group.

Table 12: Attitude by demographic variables

Demographic Variable	N			%		
	Negative	Positive	Total	Negative	Positive	Total
Gender						
Male	11	114	125	8.8	91.2	100.0
Female	5	120	125	4.0	96.0	100.0
Total	16	234	250	6.4	93.6	100.0
Marital status						
single	10	143	153	6.5	93.5	100.0
married	5	54	59	8.5	91.5	100.0
living together	1	32	33	3.0	97.0	100.0
widow/widower	0	5	5	0.0	100.0	100.0
Total	16	234	250	6.4	93.6	100.0

Age group						
<21	2	24	26	7.7	92.3	100.0
21-25	5	51	56	8.9	91.1	100.0
26-30	4	61	65	6.2	93.8	100.0
31-35	2	33	35	5.7	94.3	100.0
36-40	0	26	26	0.0	100.0	100.0
41-45	1	20	21	4.8	95.2	100.0
46-50	0	11	11	0.0	100.0	100.0
>50	2	8	10	20.0	80.0	100.0
Total	16	234	250	6.4	93.6	100.0

114 (91.2%) among male respondents, presented positive attitude towards male circumcision. 11 (8.8%) participants reflected negative attitude. Both men and women reported positive attitude (93.6 %) towards MC.

100% of the widowed participants have positive attitude towards male circumcision services. Overall, 93.6% of participants by marital status indicated positive attitude towards male circumcision. There are still 6.4% of participants who have negative attitude towards MC. About 20% of the participants from the age group of 50 years and older indicated more negative attitude towards male circumcision. The age-groups of 36-40 and 46-50 years of age have 100% positive attitude towards MC. Generally, 93.6% of all age groups have positive attitude towards MC.

4.2.2.2 Attitude by cultural variables

Cultural variables were classified as Language and Religion. Table 13 shows the frequency presentation.

Table 13: Presentation of attitudes by cultural variables

Cultural Variable	N			%		
	Negative	Positive	Total	Negative	Positive	Total
Language						
Oshiwambo	6	111	117	5.1	94.9	100.0
English	1	27	28	3.6	96.4	100.0
Herero	1	28	29	3.4	96.6	100.0
Afrikaans	4	32	36	11.1	88.9	100.0
Damara/Nam	2	18	20	10.0	90.0	100.0
Other	2	18	20	10.0	90.0	100.0
Total	16	234	250	6.4	93.6	100.0
Religion						
Lutheran	3	115	118	2.5	97.5	100.0

Roman Catholic	5	54	59	8.5	91.5	100.0
Anglican	2	8	10	20.0	80.0	100.0
Apostolic	1	23	24	4.2	95.8	100.0
Other	5	34	39	12.8	87.2	100.0
Total	16	234	250	6.4	93.6	100.0

All cultural groups have positive attitude towards MC, with 10% and 11% of Damara/Nama and Afrikaans groups having negative attitude, respectively. The “Other” group also has presented 10% of the participants with negative attitude towards MC.

Anglicans have more negative attitude (20%) towards male circumcision, compared to other respondents from other religions. 12.4% of the “Other” group also have negative attitude towards MC. Overall, 93.6% have positive attitude towards MC but 6.4% have negative attitude towards MC.

4.2.2.3 Attitudes by socio-economic variables

Table 14 below presents attitudes by socio-economic variables.

Table 14: Attitude by socio-economic variables

Socio-Economic Variable	N			%		
	Negative	Positive	Total	Negative	Positive	Total
Education						
Primary	0	15	15	0.0	100.0	100.0
Secondary	7	105	112	6.3	93.8	100.0
Tertiary	9	114	123	7.3	92.7	100.0
Total	16	234	250	6.4	93.6	100.0
Employment						
Employed	12	148	160	7.5	92.5	100.0
Unemployed	0	44	44	0.0	100.0	100.0
Student	4	42	46	8.7	91.3	100.0
Total	16	234	250	6.4	93.6	100.0

All the participants who are educated, primary, secondary and tertiary have positive attitude towards MC. Unemployed participants have more positive attitude (100%) towards MC, compared to employed respondents and students (92.5% and 91.3% respectively).

4.2.2.4 Attitude and reasons for circumcising and recommended place for circumcision

Attitude was assessed among circumcised men with regard to reasons why they were circumcised. In the same line, all respondents recommended their ideal place to perform circumcision. Their responses were put against their attitudes towards MC.

Table 15: Attitude in relation with reasons for circumcision and recommended place for circumcision

Reasons for circumcising	N			% %		
	Negative	Positive	Total	Negative	Positive	Total
Cultural/Traditional	0	25	25	0.0	100.0	100.0
Health-Related	1	29	30	3.3	96.7	100.0
Other	0	1	1	0.0	100.0	100.0
Do not remember	1	5	6	16.7	83.3	100.0
Not Applicable*	14	174	188	7.4	92.6	100.0
Total	16	234	250	6.4	93.6	100.0
Recommended place for circumcision						
Health facility	10	203	213	4.7	95.3	100.0
Traditional setting	1	18	19	5.3	94.7	100.0
Both	0	4	4	0.0	100.0	100.0
Do not know	4	9	13	30.8	69.2	100.0
Missing	1	0	1	100.0	0.0	100.0
Total	16	234	250	6.4	93.6	100.0

The findings in Table 15 were that almost 97% of male participants who are circumcised have positive attitude towards male circumcision, while 3% have negative attitude towards MC. 100% of those who were circumcised for cultural reasons have positive attitude. Among those who were circumcised for health-related reasons, 96.7% have positive attitude while 3.3% have negative attitude towards MC. More negative attitude has been discovered among those who did not remember why they were circumcised (16.7%). Overall, 93.6% of the circumcised participants have positive attitude towards MC.

100% of those who recommended circumcision to be performed in both medical and traditional settings, have positive attitude towards MC. 12.5% men who were circumcised during their adolescent years, have negative attitude towards MC. 30.8% of participants who do not know where circumcision should be carried out at, have negative attitude towards MC.

About 92.6% of uncircumcised male participants and female participants have positive attitude towards MC.

4.2.3 Perceptions towards the benefits of male circumcision

Questions 20, 21, 22 and 23 were based on perceptions. The researcher attempted to test the validity of the responses given by the respondents. The questions were in a form of incomplete statements, whereby the respondents were expected to complete them according to their own understanding. Example of the questions is shown in Table 16 below.

Table 16: Perception- related questions

	Circumcise	Uncircumcis	No	I do not
20. Sex is more enjoyable when a man is	d	ed	difference	know
	Circumcise	Uncircumcis	No	I do not
21. Women prefer to have sex with men who are	d	ed	difference	know
22. Sexual pleasure is diminished when a man is				
circumcised	Agree		Do not agree	

Respondents who chose “circumcised” in questions 20 and 21, were regarded as having positive perceptions. The ones who said “Uncircumcised” or “No difference” or “I do not know” were regarded as negative. The responses of question 20 are presented in Figure 10 below.

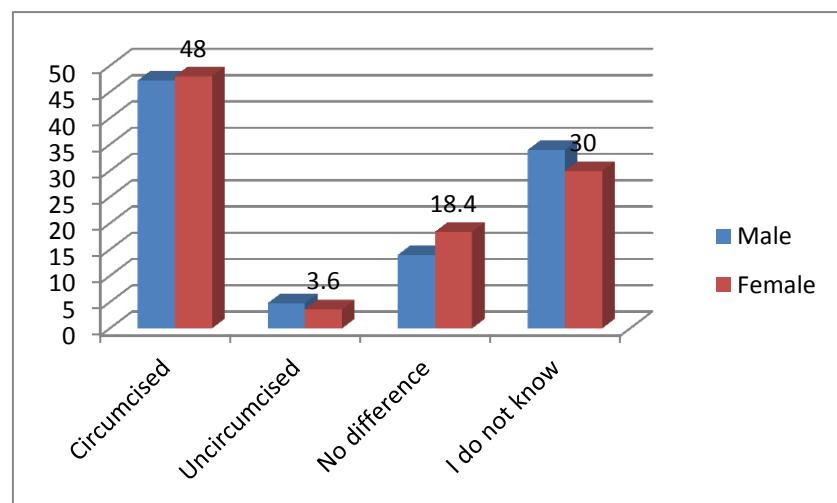


Figure 10: Presentation of the perceptions on question 20

More females (48%) perceived sexual pleasure to be high among circumcised men. About 40 per cent of men felt the same. A small proportion of both males and females said sex is more enjoyable when a man is uncircumcised.

4.2.3.1 Perceptions and demographic variables

The table below shows the frequency of perceptions by gender, marital status and age group:

Table 17: Presentation of perceptions and demographic variables

Demographic Variables	N			%		
	Negative	Positive	Total	Negative	Positive	Total
Gender						
Male	69	56	125	55.2	44.8	100.0
Female	64	61	125	51.2	48.8	100.0
Total	133	117	250	53.2	46.8	100.0
Marital status						
single	84	69	153	54.9	45.1	100.0
married	30	29	59	50.8	49.2	100.0
living together	16	17	33	48.5	51.5	100.0
widow/widower	3	2	5	60.0	40.0	100.0
Total	133	117	250	53.2	46.8	100.0
Age group						
<21	20	6	26	76.9	23.1	100.0
21-25	36	20	56	64.3	35.7	100.0
26-30	32	33	65	49.2	50.8	100.0
31-35	16	19	35	45.7	54.3	100.0
36-40	10	16	26	38.5	61.5	100.0
41-45	11	10	21	52.4	47.6	100.0
46-50	4	7	11	36.4	63.6	100.0
>50	4	6	10	40.0	60.0	100.0
Total	133	117	250	53.2	46.8	100.0

Table 17 presents that 93.6% of both females and males carry positive perceptions towards male circumcision. Only 6.4% of males and females have negative perceptions. Single, married and living together respondents have positive perceptions of about 50% towards male circumcision, compared to widowed respondents with 40% positive perceptions. Participants under the age of 21 years have more negative perceptions (76. 9%) towards MC. Among the age groups, participants in the age group 46-50 have more positive perceptions (63.4%) towards male circumcision, followed by the age group 36-40 with (61.5%) positive perceptions.

4.2.3.2 Perceptions and Cultural Variables

Table 18: Perceptions and cultural variables

Cultural Variables	N			%		
	Negative	Positive	Total	Negative	Positive	Total
Language						
Oshiwambo	63	54	117	53.8	46.2	100.0
English	14	14	28	50.0	50.0	100.0
Herero	13	16	29	44.8	55.2	100.0
Afrikaans	21	15	36	58.3	41.7	100.0
Damara/Nama	16	4	20	80.0	20.0	100.0
Other	6	14	20	30.0	70.0	100.0
Total	133	117	250	53.2	46.8	100.0
Religion						
Lutheran	63	55	118	53.4	46.6	100.0
Roman	30	29	59			
Catholic				50.8	49.2	100.0
Anglican	6	4	10	60.0	40.0	100.0
Apostolic	12	12	24	50.0	50.0	100.0
Other	22	17	39	56.4	43.6	100.0
Total	133	117	250	53.2	46.8	100.0

Findings in Table 18 show that most respondents with negative perceptions were Damara/Nama (20%). The group of “Other” has more positive perceptions (70%), compared to other ethnic groups. Among all religious groups, the Apostolic have positive perceptions (50%) with the least level of positive perceptions (43.6%) among the “Other” group.

4.2.3.3 Association between circumcision status and perceptions

Table 19 below presents perceptions in relation to circumcision status.

Table 19: Circumcision status and perceptions

Male circumcision status	N			%		
	Negative	Positive	Total	Negative	Positive	Total
not circumcised/not applicable*	106	82	188	56.4	43.6	100.0
Circumcised	27	35	62	43.5	56.5	100.0
Total	133	117	250	53.2	46.8	100.0

*Represents female respondents

Table 19 above shows an association between circumcision status and perceptions they have towards MC and its benefits. Uncircumcised men and female respondents were clustered in the “not circumcised/ not applicable” group. The circumcised group has more positive perceptions (56.5%) than those who are not circumcised and female respondents.

4.2.4 Barriers hindering acceptability of male circumcision

To determine factors that inhibit men from accepting male circumcision as a measure of HIV/AIDS prevention, respondents were asked to mention the barriers that they believe are inhibiting MC uptake. Figure 11 shows the frequency of the respondents' responses.

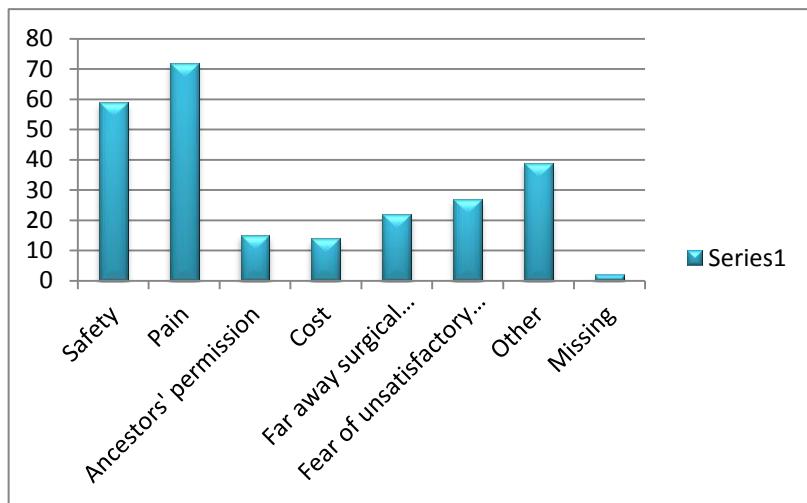


Figure 11: Barriers inhibiting MC uptake

The majority of the respondents (n=72, 28.8%) reported pain as being the most inhibiting factor to uptake MC. Among the most listed inhibiting factors was concern for safety (23.6%) and fear of unsatisfactory sexual performance (10.8%). Fourteen respondents (5.6%) were concerned about costs of MC services.

4.2.4.1 Barriers to circumcision among uncircumcised men

Table 20: Barriers to circumcision among uncircumcised men

Barriers to circumcision	N	%
Safety	19	30.2
Pain	16	25.4
Ancestors' permission	2	3.2
Cost	2	3.2
Far away surgical facilities	5	7.9
Fear of unsatisfactory sexual performance	7	11.1

Other	12	19.0
Missing	0	0.0
Total	63	100.0

Uncircumcised men expressed their concerns over safety (30.2%) and pain (25.4%). Other minor worries are over cost (3.2%), far away surgical facilities (7.9%) and fear for unsatisfactory sexual performance (11.1%) after the procedure.

4.2 Multivariate analysis (Association, correlation and logistic regression analyses)

The Chi square test was used to assess whether the association between knowledge, attitude and perceptions was real or occurred due to sampling error. After establishing the association between knowledge, attitude and perceptions, correlation between the three variables was assessed with the use of Spearman correlation technique. Logistic regression analysis was performed to discover factors that were associated with knowledge, attitude and perceptions. The findings of the analysis are presented below:

4.2.1 Correlation of knowledge, attitude and perceptions

In this section, the purpose of the analysis was to see whether there is an association between perceptions and knowledge as well as perceptions and attitude. For this purpose, the perception is an outcome variable and knowledge and attitudes are explanatory variables. Spearman correlation technique was used to assess whether there is a correlation between the two independent variables (attitude and knowledge with the MC perceptions) or not. This method was applied because the variables being dealt with are binary variables. The hypothesis is that knowledgeable respondents will have positive attitudes and positive perceptions towards MC. So, this was established with a Chi square test, and was later confirmed with bivariate correlation between the variables under study. The study found out that there is a correlation between knowledge, attitude and perceptions as shown in the table below.

Table 21: Correlation between knowledge, attitude and perceptions

		Perception Index	Knowledge Index	Attitude index
PercIndex	Spearman's rho	1	.250 **	.213 **
	P Value Sig. (2-tailed)		.000	.001
	N	250	250	250
** Correlation is significant at 0.01 level (2-tailed)				

Confident conclusion can therefore be made that there is a correlation which is statistical significant at a p- value < 0.000 and 0.001 for perceptions and knowledge, and perceptions and attitudes respectively. Spearman correlation coefficient test, however, shows that there is a moderate relationship between perceptions and knowledge which is

0.250 and the correlation is statistically significant at p-value 0.000. The significant correlation is also noted between perceptions and attitude with the correlation coefficient of 0.213 and the p-value < 0.001.

4.2.2 Association analysis between knowledge, attitude and perceptions using a Chi-square test

Table 22 shows an association between knowledge, attitude and perceptions with the use of Chi-square test.

Table 22: Association between knowledge, attitude and perceptions using Chi-square test

Variable	Chi-Square Tests			Symmetric Measures (Contingency Coefficient	
	Value	df	P Value	Value	P value
Knowledge	15.578	1	.000	.242	.000
Attitude	11.289	1	.001	.208	.001*

The table above shows that there is a strong association between perceptions and knowledge which is statistically significant at p value (<.000). It was also revealed that there is a strong association between perception and attitudes which is statistically significant at p-value (<0.001). Both the Chi square and its symmetric measures show statistical significance. Confident conclusion can then be made that this association in the population is neither by chance nor by sampling error but it is real.

4.2.3 Multivariate analysis using Binary Regression Analysis

Binary regression analysis was used to predict the likelihood of MC perceptions using knowledge and attitude. The tables below will present the three variables and their associations (Ordinary Ratio/ OR).

Model One: Perception

Variable in model	P value	Exp(B/ OR)
Constant	0.002	0.035
RG Knowledge Index(not)		
Knowledge Index(yes)	0.001**	3.188
RG attitude index(negative)		
Attitude index (positive)	0.022*	11.171

** Correlation is significant at 0.01 level (2-tailed)

According to model one, respondents who have knowledge about MC benefits are three times more likely to have positive MC perceptions than those without MC knowledge. This is statistically significant at p-value >0.001. As far as attitude is concerned, respondents who have good attitude towards MC are eleven times more likely to have positive MC perceptions than the ones with negative attitude towards MC. This is statistically significant at p-value< 0.022.

Model Two: Knowledge

Covariate	P value	Exp(B) /OR
Oshiwambo	0.225	
English	0.204	0.433
Herero	0.633	0.756
Afrikaans	0.065	0.338
Damara/Nama	0.208	0.443
Other	0.524	1.638
Primary Education	0.121	
Secondary Education	0.256	2.414
Tertiary Education	0.071	4.416
18-20	0.060	
21-25	0.184	2.316
26-30	0.023	5.310
31-35	0.001	28.642
36-40	0.050	5.357
41-45	0.183	3.153
46-50	0.998	4.401
>50	0.024	21.040
Constant	0.442	0.437

According to Model Two above, the respondents among the age group 26-30 were identified to be knowledgeable as five times more than those younger than 21 years. The findings were statistically significant at p-value < 0.02. Furthermore it was discovered that Afrikaans speaking respondents are three times less likely to have knowledge on MC benefits, as compared to respondents of other languages (p-value < 0.06). Although it is not statistically significant, it was considered due to its proximity to the p-value of 0.05.

Model three: Attitude

The table below shows an association of gender with attitudes towards MC.

Covariate	P value	Exp(B)/OR
Female	0.026	5.284

Gender was discovered to be associated with attitudes in a sense that female respondents were five times more likely to have positive attitudes towards MC, compared to males (P-value > 0.026, OR 5.284).

4.3 Summary

This chapter presented the results of the findings of the study. It also reported on the statistical analysis that determined the association of knowledge, attitudes and perceptions towards male circumcision. The analysis also highlighted the correlation of these outcome variables.

CHAPTER V

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

The results of the study are discussed in this chapter according to the following headings: Demographic information, level of knowledge, level of attitudes, and level of perceptions and barriers of male circumcision. Conclusion and recommendations make up the last part of the study.

5.1 Demographic information

Among the demographics, participation was high among people younger than the age of 30. The representation of young people in the study is congruent with the findings of Brito, Caso, Balbuena & Bailey (2009). The majority of the respondents were single (61.2%) and almost half of the research population has reached tertiary education level. This accounts to high rate of literacy. Most of the major tribes were represented, which signified a fair cross-sectional representation. The Oshiwambo tribe almost made up half of the participation which may be attributed to the tribe being the pre-dominant tribe in Namibia, and Oshiwambo speaking people are scattered all over Windhoek, which was the study area. Among all tribes, the only traditionally circumcising tribe was Herero which constituted 11.6% of the sample population.

5.2 Level of knowledge of the benefits of male circumcision

Although the Global report, (2008), reported low knowledge of the benefits of male circumcision among men, and even lower among women, this is not the case in the current study. Knowledge among men and women in Windhoek towards male circumcision is equally good (76.8%). About ninety five per cent of the respondents understood what circumcision is with 92.4% being knowledgeable that MC reduces risks of contracting STIs and 86.8% being aware that HIV reduces HIV acquisition. Most respondents (89.6%) knew that MC is associated with complications. Despite high level of knowledge, there is still a proportion of (23.2%) which is not knowledgeable. This group is likely to engage into risky HIV behavior or spread misconceptions to others if measures to increase knowledge among them are not taken. With comparison with other ethnic groups, a relatively low knowledge (55%) was discovered among Damara speaking respondents. Therefore, this group is in need of education with regard to MC and its association.

Considering the less knowledgeable population of 23.2%, it could be that the concept of male circumcision is not yet familiar to them as 33 respondents (13.2%) reported that they did not know that HIV has a protective effect of 60% against HIV acquisition. It could also mean that since the adoption of MC as an HIV prevention intervention, this population has not yet been reached by the mass media advertising campaigns that promote male circumcision. These assumptions are consistent with the findings of the African Journal of Primary Health Care and Family Medicine on KAP study among the Pharmacy and Nursing students of KwaZulu- Natal University. Basically, the

level of knowledge seemed high but respondents younger than 21 years were more ignorant and less knowledgeable. Although the great number of over 85% knew that circumcision does not wholly protect against HIV transmission, about 8% still think that once a man is circumcised, there is no need to use protection anymore. The findings are similar to those done in South Africa by Lissouba et al., (2011). There is a concern that the possibility of disinhibition is quite high among male respondents who did not agree there is still a chance of 40% of HIV acquisition among circumcised men if they practise unsafe sexual acts, once they are circumcised, they may think that they are immune to HIV acquisition.

The level of knowledge among men and women with regard to MC and HIV transmission could have been exaggerated by the fact that the current study was conducted in an urban area (the capital city for that matter) whereby accessibility of information is readily available than in rural and some urban areas across the country. As a result, the results of this study should not be generalized to other areas rather than Windhoek and further studies are therefore suggested that can make comparisons on knowledge, attitude and perceptions towards MC of different population. Findings of the statistical analysis revealed that knowledge contributes about 25% ($p\text{-value} < 0.05\%$) to perceptions. This means that good knowledge about MC and its benefits contributes to positive attitudes towards MC and its benefits. This is similar to the findings of the study by Mavhu, Buzdugan, Langhaug, Hatzold, Benedikt, Sherman, Laver, Mundida, Woelk & Cowan, (2011), that assessed factors associated with knowledge of and willingness for male circumcision in rural Zimbabwe.

5.4 Attitudes and perceptions towards male circumcision and its benefits

93.6% of the respondents reflected positive attitude towards the benefits of male circumcision. It is encouraging that 93.6% of the respondents said they will recommend their sons to be circumcised. It also encouraging that 91.2% women would recommend their partners to be circumcised. This excludes women from being amongst the factors that facilitate negative attitudes and perceptions among men towards the benefits of MC. 66.7% of men were willing to be circumcised. This level of acceptability conforms to several studies (Ngalande, 2006) which had similar results. More positive attitude was noted among the respondents from the age group 46-50 years who attained 100% positive attitude. Widowed respondents have more positive attitudes towards MC when compared to other groups. There was no significant difference among age groups with regard to level of attitudes towards MC. Except for the respondents from the age group of <50 years who had about 20% negative attitudes, positive attitudes among the rest of age groups ranged between 91-100%. Considering equal numbers of men and women who participated in the study, positive attitudes were slightly more among female respondents (96%) than males (91.2%). This may be in congruent with the findings of the study by Pappas- DeLuca et al., (2009), which found women to have more positive attitudes and Ngalande, Bailey, Levy, Kaponda, Kawala, Mhango & Chitsulo (2004), whose study discovered that most women exercised the willingness to take their children and partners for circumcision.

The statistical findings of the study are that females are five times more likely to have positive attitudes towards MC, than males. This is supported by the fact that the proportion of women with positive attitudes (96%) towards MC is higher than that of men (91%). This also supports most of the studies that assessed attitudes towards MC. The results were all similar to the descriptive results of the current study.

Level of positive attitudes and perceptions was high among Herero speaking tribe. Surprisingly, the level of perceptions (55%) towards MC among this tribe was not appealing and yet this is the circumcising tribe.

5.5 Level of perceptions towards male circumcision and its benefits

Level of perceptions of MC among the respondents accounts to 46.8%. The average 48.4% believe that circumcision enhances sexual pleasure. In details, 47.2% perceived sex to be better when a man is circumcised. Those who perceive sex to be more enjoyed among uncircumcised men had a relatively low percentage (9%). The level of perceptions is generally low since it is less than half of the whole representation. The proportion of the respondents who reflected having negative perceptions could be attributed to lack of knowledge. Circumcised men have positive perceptions (56.5%) towards MC benefits, than uncircumcised men and women (43.6%). The statistical findings reported that perceptions towards MC are affected by knowledge and attitudes towards MC. A knowledgeable person is three times more likely to have positive perceptions towards MC than someone who does not have knowledge. The study also found an association between knowledge and perceptions of 0.250 statistical significant at p-value <0.05%. This could be interpreted that individuals with low level of knowledge are likely to have negative perceptions and vice-versa, and that attitudes contributes 0.213% at p-value <0.001 which is statistical significant. Respondents who have MC knowledge are three times more likely to have positive MC perceptions than those who are not knowledgeable. The more the MC knowledge, the more people are likely to have positive MC perceptions.

5.6 Barriers that hinder acceptability of male circumcision

Respondents reported barriers that inhibit the uptake of male circumcision. Among the reported barriers, pain (28.8%) was indicated to be the most worrisome barrier, followed by safety (23.6%). Among uncircumcised men, the majority (30.2%) expressed their concern about safety associated with male circumcision. These findings are in congruency with that of Scott et al (as cited in Westercamp & Bailey, 2006). Some uncircumcised men among those who are concerned about safety have positive perceptions towards MC. The assumptions could be made that uncircumcised men with positive perceptions could accept male circumcision once the barriers are eliminated or reduced. Lack of access to surgical facilities that provide MC services, was also stressed out be among the barriers. This relates to far away surgical clinics which are out of reach of the community.

5.7 Conclusion

The study sought to assess the level of knowledge, attitudes and perceptions of men and women towards male circumcision as an HIV prevention intervention in Windhoek district. 125 males and 125 females participated in this study voluntarily. Most of the participants are knowledgeable towards MC and carry positive attitudes towards MC. The majority reported their awareness that MC offers only partial protection against HIV acquisition. Nevertheless, the proportion (23.2%) of respondents are not knowledgeable, they still need Information, education and counseling (IEC) for the success of the country's MC services, as an HIV prevention measure. Although most of the respondents reflected good knowledge and positive attitudes towards MC, the level of perception is relatively low. The majority preferred medical to traditional male circumcision. Safety is one of the major concerns expressed by most of the participants. Both medical and traditional settings are accepted by respondents. The minor barriers are cost of MC, infections, and the facilities being far away from the community.

5.8 Recommendations

From the findings of the study, it is recommended that:

- MOHSS in collaboration with Ministry of Information should enforce extensive mass campaigns that include the provision of Information, Education and Communication (IEC) materials to create awareness among the residents of Windhoek who have not been reached by other information campaigns
- IEC materials should be comprehensive HIV information package and must be provided in all local languages.
- MOHSS and private sectors need to initiate the best approach to minimize the barriers as outlined by respondents in order to increase acceptability among uncircumcised men.
- It is of high significance to employ measures to increase awareness that enables the community to highlight the difference between risk reduction and risk elimination. This may minimize potential behavioral disinhibition.
- Extensive training of health personnel who perform the MC procedure is more crucial in ensuring that safety is maintained, and risks related with the MC procedures are minimized. This will have a benefit on reducing barriers to circumcision and enhance acceptability.
- Equipping traditional circumcisers with the necessary knowledge and skills pertaining to safe and hygienic performance of MC procedure will accommodate people who prefer traditional circumcision to medical one. It is also advisable that the traditional circumcisers are provided with ongoing training and refresher courses so that they perform such procedures according to health standards. Furthermore, traditional circumcisers will need regular monitoring and supervision.
- There is also a need to sensitize the residents of Windhoek who have not yet been reached by information campaigns

- Priority should be taken by relevant authorities to establish more circumcision sites in order to hasten up the process of MC and encourage uptake.

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Appendix 1: Informed consent



STELLENBOSCH UNIVERSITY

CONSENT TO PARTICIPATE IN RESEARCH

AN ASSESSMENT INTO PERCEPTIONS OF MEN AND WOMEN TOWARDS MALE CIRCUMCISION IN WINDHOEK DISTRICT

You are asked to participate in a research study conducted by Ms. Teopolina Ndeshipanda Nashandi (081 127 1496), an MPhil student in HIV/AIDS Management from the University of Stellenbosch, Faculty of Economic and Management science and the Principal Investigator, Dr Thozamile Qubuda (+27 21 808 3999), from the AIDS Centre at Stellenbosch University. The results of the study will be contributed to thesis. You were selected as a possible participant in this study because you meet the requirements for participation in this study.

1. PURPOSE OF THE STUDY

To provide basic understanding on knowledge, attitudes and perceptions about male circumcision as well as barriers that inhibits the effectiveness of male circumcision as an HIV prevention strategy. The study will help to identify gaps in the implementation of the current available male circumcision information and HIV/AIDS prevention guidelines as it will assist the policy makers to incorporate the result of the study in their guidelines as well as to address the issues discovered by the study. In addition, this study is aimed at creating awareness to those who are not familiar with the concept of male circumcision.

2. PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following things:

Complete a questionnaire that will require about 15 to 30 minutes of your time. Kindly be honest as possible.

3. POTENTIAL RISKS AND DISCOMFORTS

There are no risks involved with the research questionnaire apart from some questions that you may find sensitive or uncomfortable to answer. Time taken to fill in the questionnaire might cause inconvenience to some people.

4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

You will not gain any personal benefit from this study, but your participation will benefit others by enabling policy makers to strategize ways that will improve male circumcision services as a measure of HIV/AIDS prevention while in the process, reducing the impact of HIV/AIDS in the country. Your responses will enable the researchers to understand the community's perceptions on male circumcision.

5. PAYMENT FOR PARTICIPATION

You will not receive any remuneration from participating from the study although your responses will benefit others who by enabling the researchers to discover and problems that may be associated with the current delivery of male circumcision services. Your participation may also assist you to understand better about male circumcision and its association with HIV/AIDS.

6. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of allocating codes to the questionnaires instead of using the participants' names. The information will be stored at the researcher's office in a lockable steel cabinet to which only one person has access to both the office and the key to the cabinet. Only the investigators will have access to the unprocessed data. The result of the study will be presented in a report without identifying participants' names.

7. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

8. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact Ms Teopolina Ndeshipanda Nashandi at (061) 295 4011 or 081 127 1496 or Dr Thozamile Qubuda at +27 21 808 3999.

9. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development.

SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE

The information above was described to me, _____ by Teopolina Ndeshipanda Nashandi in Afrikaans/English/Oshiwambo and I am in command of this language or it was satisfactorily translated to me. I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

Name of Subject/Participant

Name of Legal Representative (if applicable)

Signature of Subject/Participant or Legal Representative

Date _____

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to _____. He/she was encouraged and given ample time to ask me any questions. This conversation was conducted in Afrikaans/*English/Oshiwambo and this conversation was translated into _____ by _____.



Signature of Investigator

Date _____

A

PERCEPTIONS OF MEN AND WOMEN TOWARDS MALE CIRCUMCISION AS AN HIV PREVENTION INTERVENTION IN WINDHOEK DISTRICT

Background:

Three Randomised Trials were conducted and discovered that Male circumcision has a protective effect against HIV of 60%. As a result, World Health Organization (WHO) recommended scaling up of Male Circumcision as part of the health intervention in HIV prevention, especially in countries where HIV prevalence is high. Male Circumcision is also known with the following benefits:

- It reduces the risks of sexually Transmitted Infections, therefore lowering the chances of contracting HIV
- It corrects penile abnormalities such as Phimosis, therefore smoothing the flow of urine
- It also reduces the transmission of Human Papilloma (HPV) Virus thus protecting women against cervical cancer
- It also prevents penile cancer in men
- It promotes hygiene

THE SURVEY QUESTIONNAIRE

I. Demographic and socio-economic information

Serial No:

Age.....years

Gender: Male ↑ Female ↓ . **Marital Status:** Single/Married/Living together but not married/Divorced /Separated/Widow/Widower

Language commonly spoken at home: Oshiwambo ↑ , English↑ , Herero↑ , Afrikaans↑ , Damara/Nama↑ Other_____

Educational level: Primary (Grade 1-7) / Secondary (Grade8-12) / Tertiary (University/ College)

Employment status: Employed/ Unemployed/ Student

Religion: Lutheran/ Roman Catholic/Anglican/Apostolic/Other _____

How long have you been living in Windhoek? _____ years/ _____ months

KNOWLEDGE, ATTITUDES AND PERCEPTIONS AS WELL AS BARRIERS

II. Knowledge about male circumcision

Please underline or circle the answer with pen/pencil

1. Male circumcision is the surgical removal of the part of or the whole foreskin (skin fold that covers the glans penis [the head of the penis]) YES /NO

2. Are you circumcised? Yes..... (If yes go to question 3)

No (Go to question 6)

Not applicable

3. What was the reason for getting circumcised?

Cultural/traditional
Health-related
I do not remember
Other (specify) _____

4. Were you circumcised in: ↑↑ Childhood (From birth to 13 years)
Adolescence (From 14-19 years)
Adulthood (20 years and older)
Do not remember?

5. Where was it performed?

Hospital/ Health facility
Traditional
I do not know

6. Have you heard that circumcision reduces the risks of men of contracting Sexually Transmitted Infections?
Yes /No

7. Do you know that circumcision reduces the risks of contracting HIV/AIDS? YES /NO

8. The penile cancer is more common among men who are:

Circumcised
Uncircumcised
No difference
I do not know

9. Women are at risk of cervical cancer when their partners are:

Circumcised
Not circumcised
No difference

I do not know

10. Penile hygiene is more improved when men are:

- Circumcised
 - Uncircumcised
 - No difference
 - I do not know

11. A circumcised man can still contract HIV if he has unprotected sex with infected women: Agree / do not agree

12. If an opportunity is provided for you will you participate in circumcision?

- YES
NO
Not Applicable

13. If answer is NO Why?

- Afraid of pain?
 - It is against your culture?
 - You feel it is expensive
 - You do not know where to go
 - No reason
 - Not applicable

14. Do you know the complications associated with male circumcision?

- Pain
 - Bleeding
 - Infection
 - Mutilation of the penis
 - Loss of penile sensitivity
 - Other (Specify) _____

III. Attitudes towards male circumcision (Circle whichever applies)

15. Would you recommend your son to be circumcised? YES
NO

16. Would you recommend your partner to be circumcised?

YES

NO

Not Applicable

17. Given that circumcision is free-of- charge, would you get circumcised?

Yes, I will go for it

No, I will stay uncircumcised

I am already circumcised

Not applicable

18. Considering the costs of male circumcision, how much do you think male circumcision services should be charged?

Less than N\$ 5

Less than N\$ 10

Less than N\$ 15

Must be free-of-charge

I do not know

19. Would you recommend male circumcision to be carried out at?

Health facility

Traditional setting

Both

I do not know

IV. Perceptions towards male circumcision

20. Sex is more enjoyable when a man is:

Circumcised

Uncircumcised

No difference

I do not know

21. Women prefer to have sex with men who are:

Circumcised

Uncircumcised

It does not really matter

I do not know

22. Sexual pleasure diminishes when a man gets circumcised

- i. I agree
- ii. Do not agree
- iii. I do not know

23. Circumcision is for young people, old people do not need to be circumcised

- i. I agree
- ii. I do not agree
- iii. I do not know

V. Barriers of male circumcision

24. What worries people most to accept male circumcision?

- i. Safety
- ii. Pain
- iii. Ancestors' permission
- iv. Cost
- v. Far away surgical facilities
- vi. Fear of unsatisfactory sexual performance
- vii. Other

Appendix 3: Permission from SU Ethical committee



Approved with Stipulations New Application

06-Aug-2012
Nashandi, Teopolina N
Stellenbosch, WC

Protocol #: HS821/2012

Title: The perceptions of men and women towards male circumcision as an HIV prevention intervention in Windhoek district

Dear Ms Teopolina Nashandi,

The New Application received on 16-Jul-2012, was reviewed by Research Ethics Committee: Human Research (Humanities) via Committee Review procedures on 26-Jul-2012.

Please note the following information about your approved research protocol:

Protocol Approval Period: 26-Jul-2012 -25-Jul-2013

Present Committee Members:

Theron, Carl CC
Somhlaba, Ncebazakhe NZ
Viviers, Suzette S
Van Zyl, Gerhard G
Fouche, Magdalena MG
Van Wyk, Berte B
Hansen, Leonard LD
Horn, Lynette LM
De Villiers-Botha, Tanya T
Newmark, Rona R
Prozesky, Heidi HE
Beukes, Winston WA

The Stipulations of your ethics approval are as follows:

1.DESC concerns are confirmed as relevant and worthy of response from the PI. These include: a) Contact detail of PI should appear wherever PI's name is included as contact person; b) Numbering on consent forms is incorrect; c) university logo should appear on all university proforma (such as informed consent form); d) PI is to explain in a note to the REC how exactly discomfort will be mitigated, which counselling service with appropriate contact detail will be provided (in view of the potential discomfort elicited by probing questions about sexuality and HIV and AIDS; e) All investigators, investigator assistants should be identified properly; f) All documents aimed at informing participants, or collecting data from them, should be translated.

2.c) In biographic section of questionnaire participants select their respective home languages, one option being "other". How will "other" be accommodated if a participant does not understand any of the three languages offered sufficiently to firstly, secure "INFORMED" consent, and secondly, to respond accurately to questions

3.Permission letters from ALL relevant authorities (organisational as well as institutional) are to be obtained (hospitals too, not just relevant Health Council;

Additional reviewer comments (response not required for REC approval)

1.There are inconsistencies in the numbering of three translated versions of questionnaires which require attention

2.Another inconsistency is that "penis" is excluded from "glanspenis" in Afr questionnaire and "glans is left untranslated in the English version / 3.The multiple responses offered do not always fit the question [e.g. q. 8]

4."help ook" is leading the respondent towards a particular answer);

Standard provisions

1. The researcher will remain within the procedures and protocols indicated in the proposal, particularly in terms of any undertakings made in terms of the confidentiality of the information gathered.
2. The research will again be submitted for ethical clearance if there is any substantial departure from the existing proposal.
3. The researcher will remain within the parameters of any applicable national legislation, institutional guidelines and scientific standards relevant to the specific field of research.
4. The researcher will consider and implement the foregoing suggestions to lower the ethical risk associated with the research.

You may commence with your research with strict adherence to the abovementioned provisions and stipulations.

Please remember to use your **protocol number (HS821/2012)** on any documents or correspondence with the REC concerning your research protocol.

Please note that the REC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

After Ethical Review:

Please note that a progress report should be submitted to the Committee before the approval period has expired if a continuation is required. The Committee will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly for an external audit.

National Health Research Ethics Committee (NHREC) number REC-050411-032.

This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health).

Provincial and City of Cape Town Approval

Please note that for research at a primary or secondary healthcare facility permission must be obtained from the relevant authorities (Western Cape Department of Health and/or City Health) to conduct the research as stated in the protocol. Contact persons are Ms Claudette Abrahams at Western Cape Department of Health (healthres@pgwc.gov.za Tel: +27 21 483 9907) and Dr Helene Visser at City Health (Helene.Visser@capetown.gov.za Tel: +27 21 400 3981). Research that will be conducted at any tertiary academic institution requires approval from the relevant parties. For approvals from the Western Cape Education Department, contact Dr AT Wyngaard (awyngaar@pgwc.gov.za, Tel: 0214769272, Fax: 0865902282, <http://wced.wcape.gov.za>).

Institutional permission from academic institutions for students, staff & alumni. This institutional permission should be obtained before submitting an application for ethics clearance to the REC.

Please note that informed consent from participants can only be obtained after ethics approval has been granted. It is your responsibility as researcher to keep signed informed consent forms for inspection for the duration of the research.

We wish you the best as you conduct your research.

If you have any questions or need further help, please contact the REC office at .

Included Documents:

Admin review
Research Proposal
Consent form
Consent form translated
Afr Questionnaire
Questionnaire
Letter of Permission
REC app
Information Sheet
Ingeligte toestemming
DESC app
Questionnaire translated
Consent form 2

Sincerely,

Winston Beukes
REC Coordinator
Research Ethics Committee: Human Research (Humanities)

Appendix 4: Oshiwambo Informed Consent



UNIVERSITEIT•STELLENBOSCH•UNIVERSITY

jou kennisvennoot • your knowledge partner

OSHIPUTUDHILO SHOPOMBANDA SHASTELLENBOSCH

EZIMININO LYOKUKUTHA OMBINGA MOMAPEKAAPEKO

**EKONAKONO LYOKUTALA NKENE AALUMENTU NAAKIINTU
YOMOVENDUKA YA TALA KO EKENKO ONGOMUKALO
GWOKUSHUNITHA PEVI ETAANDELO LYOMBUTO YO-HIV.**

Oto pulwa nesimaneko opo u kuthe ombinga momapekaapeko taga ningwa kuTeopolina Ndeshipanda yaNashandi (onomola yongodhi 081 127 1496) ngoka e li omunasikola koUniversiti yaStellenbosch ti ilongele onkatu yopombanda mekondjitho lyomukithi gwo-HIV/AIDS. Omapekaapeko ote ga ningi pamwe nomulungi gwe Omundohotola Thozamile Qubuda (Onomola yongodhi +27 21 808 3999). Iizemo yomapekaapeko ngaka otayi ka longithwa moku mu pethitha onzapo monkatu yopombanda. Oto indilwa nee ngeyi opo u kuthe ombinga molwashoka owu na omauyelele ngoka taga pumbiwa opo omuntu a vule okukutha ombinga.

1. ELALAKANO LYOMAPEKAPEKO

Okweeta po euveko kombinga yontseyo, omikalo, omaitaalo kombinga yekenko lyaalumentu, osho wo iikateki mbyoka tayi etitha enkundipalo mokutaambiwa ko kwekenko lyaalumentu ongomukalo gwokushunitha pevi etaandelo lyombuto yo-HIV. Omapekaapeko otaga ka kwathela wo okuulika mo omaunkundi ngoka ge li mokutula miilonga omilandu ndhoka dha totwa nale dhi na sha nomauyelele kombinga yekenko, notaga ka kwathela wo aanduluki yomilandu ya kwatele mo oshizemo shomomapekaapeko, nosho wo okukondjitha omikundu ndhoka dha monika. Omapekaapeko ngaka otaga ka kwathela wo mboka inaa uva nando onale ekenko lyaalumentu kutya oshike, ye li tseye.

2. OMILANDU

Ngele owi iyamba u kuthe ombinga momapekaapeko muka otatu ke ku pula iinima tayi landula:

Oto ka pewa elandulathano lyomapulo ngoka wa pumbwa okuyamukula to udhitha mombaapila ndjoka to pewa, notashi ke ku kutha konyala ominute omulongo nantano sigo omilongo ndatu. Kambadhala wu gandje uuyeletele wu li mondjila ngaashi tashi vulika.

3. OMAUPYAKADHI NGOKA HASHI VULIKA GA HOLOKE

Kapu na naanaa uupyakadhi wa sha wa tegelelwa wu ka holoke molwokukutha ombinga kwoye momapekaapeko muka, ashike otashi vulika omapulo gamwe wu ga mone ko ga fa omawinayi unene noitoo vulu oku ga yamukula. Otashi vulika aantu yamwe ya ka kale ye wete okuyamukula omapulo taku ya manene po ethimbo lyawo.

4. OMAUWANAWA KAAKUTHIMBINGA NENGE KOSHIGWANA

Omayamakulo ngoka to ka gandja itage ku kwathela ongoye awike, ashike omayamukulo ngaka otaga ka kwathela oshigwana ashihe notaga ka kwathela wo aalongekidhi yomilandu opo ya hwepopaleke omulandu ngu gwa tulwa po nale gu na sha nekenko lyaalumentu ongoshitopolwa shokukondjitha nokushunitha pevi etaandelo lyombuto yo-HIV. Ekuthombinga lyoye ota li ka kwathela wo aaningi yomapekaapeko yu uve ko omayiuvo gaakwashigwana kombinga yekenko lyaalumentu.

5. ONDJAMBI MOLWEKUTHOMBINGA MEPEKAPEKO NDIKA

Ondjambi yoye mepekaapeko ndika oyo ontseyo ndjoka to ka likola kombinga yekwatathano pokati kenkeko nombuto yo-HIV. Omayamukulo ngoka to gandja otaga ka kwathela aapekaapeki ya tothe mo omaunkundi ngoka ge li momilandu ndhoka dhi li po dhi na sha nekenko.

6. OKWAALOLOLA UUYELELE WOYE MBU TO GANDJA

Uuyeletele auhe to ka gandja momapekaapeko ngaka otawu kala oshiholekwanima thiluthilu noitawu ka gandjwa nande okulye, kakele owala kungoye mwene nenge papitikilo lyoye, nenge ngele owa pumbiwa kompango. Itatu ka longitha nando edhina lyomuntu mombapila ndji wa yamukula, otatu longitha owala oonomola. Kapu na

nando ogumwe ta ka tseye kutya owa yamukula shike. Oombapila adhihe ndhi dha yamukulwa otadhi kala dha patelwa mokaskopa koshitenda mombelewa yanakupeapeka. Nakupeapeka oye owala e na oshipatululo shombelewa ndjoka, osho wo shokaskopa mu mwa patelwa oombapila. Iizemo yomayamukulo otayi ka shangwa momushangwa ngu tagu ka tuminwa komundohotola Qubuda, ashike itamu ka shangwa nando edhina lyomuntu.

7. OKUKUTHA OMBINGA NENGE OKUTINDA

Oto vulu okukutha ombinga nenge okutinda okukutha ombinga momapeapeko ngaka. Ngele owi iyamba okukutha ombinga, oto vulu okwiikutha mo kehe ethimbo nopwaa na nando egeelo lyasha. Oto vulu wo okutinda okuyamukula omapulo ngoka u uvite inoo hala oku ga yamukula ndele e to tsikile okuyamukula ngoka wa hala. Omupeapeki ota vulu okukwiindika waa tsikile we nokugandja uuyelete ngele oku wete sha pumbiwa.

8. OMAUYELELE GOONAKUNINGA OMAPEAPEKO

Ngele owu na omapulo nenge omagwedhelepo gasha, oto vulu okudhengela koonomola tadhi landula: Ms Teopolina Ndeshipanda Nashandi at (061) 295 4011 nenge kongodhi yosheendelela 081 127 1496 nenge wu dhengele Omundohotola Thozamile Qubuda konomola +27 21 808 3999.

9. UUTHEMBA WOYE NAKUKUTHOMBINGA

Oto vulu wu hulithe po okugandja uuyelete pwaa na egeelo lyasha. Ito vulu okuningilwa nando oshipotha shasha shaashi wa tokola kutya ino hala we okukutha ombinga momapeapeko ngaka. Ngele owu na omapulo gasha ge na sha nuuthemba woye onganakukuthombinga momapeapeko ngaka, oto vulu okuninga ekwatathano naMee Maléne Fouché koiimeila nenge kongodhi ndjika [mfouche@sun.ac.za; 021 808 4622] koshitopolwa shomapeapeko.

ESHAINOKAHA LYANAKUKUTHOMBINGA NENGE LYOMUKALELIPO GWE

Uuyelete auhe onde u yelithilwa, _____
kuTeopolina Ndeshipanda Nashandi mOshiwambo, elaka ndyoka ndu uvite. Onda

pewa wo ompito opo ndi pule omapulo nonda yelelwa lela komayamukulo ngoka nda
pewa.

Otandi gandja epitikilo lyandje lyokukutha ombinga momapekapeko ngaka. Onda
pewa wo okopi yombaapila ndji.

EDHINA LYANAKUKUTHOMBINGA

ESHAINO LYANAKUKUTHOMBINGA

ESIKU_____

ESHAINOKAHA LYANAKUNINGA OMAPEKAPEKO

Otandi gana kutya onda gandja omauyelete ge na sha nombapila ndjino ku
_____. Okwa li a tsuwa omukumo nokwa pewa ethimbo lya gwana
lyokupula omapulo. Oonkundathana ndhino odha ningwa melaka lyOshiwambo
nodha tolokelwa melaka lyOshiingilisa ku _____.



ESHAINOKAHA

ESIKU_____

Appendix 5: Oshiwambo Questionnaire

NKENE AALUMENTU NAAKINTU YOMOVENDUKA YA TALA KO EKENKO LYAALUMENTU ONGOMUKALO GWOKUSHUNITHA PEVI ETAANDELO LYOMBUTO YO-HIV

Omakonakono ga ningilwe moKenya, moUganda, nomoSouth Africa mewiliko lyehangano lyuundjolowele ogu unlike kutya ekenko lyaalumentu otali vulu okukelela etaandelo lyombuto yo-HIV noopelesenda omilongo hamano. Okuza mpono ehangano lyuundjolowele muuyuni olya tokola kutya iilongo ayihe moka etaandelo lyombuto yo-HIV li li pombanda nayi tameke okukenga aalumentu ongomukalo gwokukondjitha etaandelo lyombuto ndjika. Ekenko lyaalumentu oli na wo omauwanawa galwe ga gwedhwa po ngaashi:

- Otali shunitha pevi etaandelo lyomikithi dhohoni, nopamukalo nguka otali shunitha pevi etaandelo lyombuto yo-HIV
- Otali kaleke uulumentu muundjolowele wu li nawa notali keelele opo aalumentu yaa kale taa talaleke nuudhigu
- Otali shunitha pevi ombuto yuuuu ndjoka hayi eta okaankela yokoshivalelo momemee
- Otali keelele okaankela yokuulumentu
- Otali eta uuyogoki miilyo yuulumentu

OSHTOPOLWA I: OMAUYELELE KOMBINGA YUUKWATYA WANAKUPULWA

Uukashikekookantu: Omulumentu
Omukiintu

Oomvula dhoye: _____ / Kandi shi wo

Uukwatya wondjokana: Owa hokanwa/ Ino hokanwa/ Omwa kala pamwe ne inaa mu hokana/ Owa hengana/ Owa hengwa/ Omuselekadhi/ Omusilwalume

Elaka ndi ho popi megumbo: Oshiwambo/ Oshiingilisa/ Oshiherero/ Oshimbulu/
Oshidamara (Oshinama)

Uulongelwe: Ondondo okuza pu 1 sigo onti-7/ Ondondo onti-8 sigo onti-12/ Ondondo yokiiputudhilo yopombanda

Iilonga: Oho longo / Iho longo / Omunasikola

Uukwambepo: Omukwaluuteli / Omukatoolika / OmuAnglikana/ OmuApostoli/ Oshilyo shoongeleka dhilwe (tumbula)_____

Owa kala mo ethimbo li thike peni mOvenduka?: Uule womimvo_____/ Uule woomwedhi_____

ONTSEYO, OMIKALO, EITAALO NOSHO WO IIKATEKI KOMBINGA YEKENKO LYAALUMENTU

OSHITOPOLWA II: ONTSEYO KOMBINGA YEKENKO LYAALUMENTU

(Sindolola nopena shoka wa hogolola po)

1. Ekenko lyaalumentu olyo etando lyokukutha ko etata lyoshipa nenge oshipa ashihe shoka sha siikila omutse guulumentu : EENO / AAWE

2. Owa kenkwa? EENO.....(Tsikila nepulo etitatu 3)
 AAWE.....(Inda kepulo etihamano 6)
 ITASHI WAPA

3. Omatompelo geni po ge ku kenkitha?
 Omuthigululwakalo gwestu
 Epango
 Itandi dhimbulukwa
 Galwe (ga tumbula)_____

4. Owa kenkwa meepipi lini? **Lyuunona** (Oku za pevalo sigo opomimvo omulongo nandatu)
 Lyopokati (oku za pomimvo omulongo nane sigo omulongo nomugoyi)
 Lyuukuluntu (Oku za pomimvo omilongo mbali shu uka pombanda)

5. Owa kenkelwa peni?: Omoshipangelo
Opamuthigululwakalo
Itandi dhimbulukwa
Palwe (tumbula po)_____
6. Owa kundana kutya ekenko lyaalumentu oha li shunitha pevi ompito yokukwatwa komikithi dhohoni? EENO/ AAWE
7. Owa tseya kutya ekenko ota li vulu okushunitha pevi ompito yaalumentu yokukwatwa kombuto yo-HIV?
EENO/ AAWE
8. Ompito yokukwatwa kokaankela yokuulumentu ohayi kwata unene aalumentu mba:
Ya kenkwa
Inaa ya kenkwa
Itashi kwatha sha
Kandi shi wo
9. Ompito yaakiintu yokukwatwa kokaankela yokoshivalelo ohayi indjipala ngele omulumentu:
A kenkwa
Inaa kenkwa
Itashi kwatha sha
Kandi shi wo
10. Uuyogoki wokuulumentu ohau hwepopala ngele omulumentu:
A kenkwa
Inaa kenkwa
Itashi kwatha sha
Kandi shi wo
11. Omulumentu a kenkwa ota vulu okukwatwa kombuto yo-HIV ngele okwa yi momilalo inaadhi gamenwa nomukiintu e na ombuto: OSHO / HASHO
12. Ngele owa pewa ompito wu kenkwe oto zimine?
EENO / AAWE/ Itashi wapa

13. Eyamukulo lyoye kepulo lya zi ko ngele oAAWE, omolwashike itoo kenkwa?

Onda tila uuwehame
Kashi li momuthigululwakalo gwandje
Ekenko oli na ondilo
Kandi shi mpa te tsu
Kapu na etompelo
Ita shi wapa (Omukiintu)

14. Owa tseyea omaupyakadhi nga taga vulu okwe eta kekenko?

Uuwehame
Okuziya ombinzi
Okulemana kuulumentu
Okukanitha omayiuvo kuulumentu
Yilwe (yi tumbula)_____

OSHITOPOLWA III: OMIKALO

15. Oto popile okamoye okamati ka kenkwe?

EENO / AAWE

16. Oto popile kuume koye komomilalo a kenkwe?

EENO/ AAWE /ITASHI WAPA (Omulummentu)

17. Andoe ekenko lyaalumentu olya li hali ningwa oshali, ando oto zimine wu kenkwe?

Eeno ote zimine
Aawe ite zimine, ote kala inaandi kenkwa
Onda kenkwa nale
Itashi wapa (Omukiintu)

18. Oto dhiladhila andola ondando yekenko yi kale pwiingapi komuntu?

Inaali thika poodola ntano
Inaali thika poodola omulongo
Inaali thika poodola omulongo nantano
Nali kale oshali
Kandi shi wo

19. Oto popile ekenko li ningilwe:

- Miipangelo
- Pamuthigululwakalo
- Miipangelo nopamuthigululwakalo
- Kandi shi wo

OSHITOPOLWA IV: OMAITAALO

20. Omilalo omiwanawa ngele omulumentu:

- A kenkwa
- Inaa kenkwa
- Kapu na eyooloko
- Kandi shi wo

21. Aakiintu oye hole okuya momilalo naalumentu:

- Ya kenkwa
- Inaaya kenkwa
- Kapu na eyooloko
- Kandi shi wo

22. Eyuvo lyonawa lyomomilalo ohali shonopala ngele omulumentu a kenkwa:

- Otandi zimine
- Itandi zimine
- Kandi shi wo

23. Okukenkwa okwaagundjuka, naalumentu mba ya koka inaa pumbwa okukenkwa:

- Otandi zimine
- Itandi zimine
- Kandi shi wo

OSHITOPOLWA V: IIKATEKI YEKENKO LYAALUMENTU

24. Oshike hashi etelele aantu uumbanda wokutaamba ko ekenko?

Okukenkwa kwa li paundjolowele
Uuwehame
Etaambiwoko kaakuluyonale
Ondando
Uukule womahala gokunkenkelwa
Uumbanda wokwaalonga nawa momilalo
Yilwe_____

Appendix 6: Afrikaans informed consent



UNIVERSITEIT•STELLENBOSCH•UNIVERSITY
jou kennisvennoot • your knowledge partner

UNIVERSITEIT STELLENBOSCH TOESTEMMING OM DEEL TE NEEM AAN NAVORSING

'N BEPALING VAN MANS EN VROUE SE PERSEPSIES VAN MANLIKE BESNYDING IN DIE WINDHOEK DISTRIK

U word hiermee gevra om deel te neem aan 'n navorsingstudie uitgevoer deur Teopolina Ndeshipanda Nashandi (081 127 1496), 'n MPhil student in MIV/VIGS Bestuur aan die Universiteit Stellenbosch se Fakulteit Ekonomiese en Bestuurswese en die hoofnavorser, Dr Thozamile Qubuda (+27 21 808 3999), van die Universiteit Stellenbosch se Vigs Sentrum. Die resultate van hierdie studie sal bygedra word tot 'n tesis. Jy is as moontlike deelnemer vir die studie geselecteer omdat jy voldoen aan die vereistes vir deelname aan die studie.

1. DOEL VAN HIERDIE STUDIE

Om 'n basiese begrip van die kennis, houdings en persepsies van manlike besnyding, sowel as die hindernisse wat die doeltreffenheid van manlike besnyding as MIV-voorkoming strategie inhibeer, te verskaf. Die studie sal help om gapings in die implementasie van die huidige beskikbare inligting en MIV/VIGS voorkoming riglyne te identifiseer omdat dit beleidmakers sal help om die resultate van die studie by hul riglyne te inkorporeer, sowel as om die kwessies aan te spreek wat tydens die studie ontdek word. Daarbenewens is hierdie studie daarop gemik om bewusheid te skep onder diegene wat nie vertroud is met die konsep van manlike besnyding.

2. PROSEDURES

As jy vrywillig aanbied om aan hierdie studie deel te neem, sal ons jou vra om die volgende dinge te doen:

Voltooii ‘n vraelys wat sowat 15 tot 30 minute sal neem om te voltooii. Wees asseblief so eerlik as moontlik.

3. POTENSIËLE RISIKO'S EN ONGEMAKLIKHEDE

Daar is geen risiko's betrokke by die navorsing vraelys nie, met die uitsondering van sommige vrae wat jy dalk sensitiief mag vind of ongemaklik sal voel om te antwoord. Die tyd wat dit neem om die vraelys te voltooii mag dalk ongerief veroorsaak vir sommige mense.

4. POTENSIËLE VOORDELE VIR PROEFPERSONE EN/OF DIE SAMELEWING

Jy sal nie enige persoonlike voordeel uit hierdie studie trek nie, maar jou deelname sal ander baat deurdat dit beleidmakers in staat sal stel om strategieë uit te dink wat manlike besnyding dienste as ‘n manier om MIV/VIGS te voorkom, sal verbeter, en in die proses, die impak van MIV/VIGS in die land verminder. Jou antwoorde sal die navorsers help om die gemeenskap se persepsies van manlike besnyding te verstaan.

5. BETALING VIR DEELNAME

Jy sal nie geen vergoeding ontvang vir jou deelname aan die studie nie, hoewel jou antwoorde ander sal baat deurdat dit die navorsers in staat sal stel om probleme te ontdek wat dalk met die huidige lewering van manlike besnyding dienste geassosieer word. Jou deelname kan jou ook help om manlike besnyding en die verbintenis daarvan met MIV/VIGS, beter te verstaan.

6. VERTROULIKHEID

Enige inligting wat deur hierdie studie verkry word en wat kan help om jou te identifiseer, sal vertroulik bly en sal slegs met jou toestemming of soos deur die wet vereis, bekend gemaak word. Vertroulikheid sal handhaaf word deurdat kodes pleks van deelnemers se name op die vraelyste gebruik word. Die inligting sal by die navorsers se kantoor in ‘n sluitbare staal kas geberg word, en net een persoon sal toegang hê tot beide die kantoor en kas. Slegs die navorsers sal toegang hê tot die onverwerkte data. Die resultate van die studie sal in ‘n verslag aangebied word sonder dat deelnemers identifiseer word.

7. DEELNAME EN ONTTREKKING

Jy kan besluit of jy aan die studie wil deelneem of nie. As jy vrywillig aanbied om aan die studie deel te neem, kan jy enige tyd onttrek sonder dat daar enige nagevolge van enige soort is. Jy kan ook weier om enige vrae te antwoord wat jy nie wil antwoord nie, en steeds deel bly van die studie. Die navorsing kan jou van die studie onttrek as daar omstandighede onstaan wat dit regverdig.

8. IDENTIFIKASIE VAN ONDERSOEKERS

Indien jy enige vrae of besorgdhede het rakende die navorsing, voel vry om Me. Teopolina Ndeshipanda Nashandi by (061) 295 4011 of 081 127 1496, of Dr Thozamile Qubuda by +27 21 808 3999 te kontak.

9. REGTE VAN NAVORSING PROEFPERSONE

Jy kan enige tyd jou toestemming onttrek en deelname aan die studie beëindig sonder dat jy gepenaliseer word. Jy doen nie afstand aan enige wetlike eise, regte of regsmiddele deur jou deelname aan hierdie navorsingstudie nie. As jy enige vrae het aangaande jou regte as navorsing proefpersoon, kontak Me. Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] by die Afdeling Navorsingsontwikkeling.

HANDTEKENING VAN NAVORSING PROEFPERSOON OF REGSVERTEENWOORDIGER

Bogenoemde inligting is aan my, _____ beskryf deur Teopolina Ndeshipanda Nashandi in Afrikaans/Engels/Oshiwambo en *ek* is die taal magtig of dit is op bevredigende wyse vir my vertaal. Ek is die geleentheid gegee om vrae te vra en hierdie vrae is bevredigend beantwoord.

Hiermee stem ek vrywillig in om deel te neem aan hierdie studie. ‘n Afdruk van hierdie vorm is aan my verskaf.

Naam van Proefpersoon/Deelnemer

Naam van Regsverteenvoerdiger (indien van toepassing)

Handtekening van Proefpersoon /Deelnemer of Regsverteenvoerdiger

Datum _____

HANDTEKENING VAN ONDERSOEKER

Hiermee verklaar ek dat ek die inligting in hierdie dokument verduidelik het aan
_____. Hy/sy is aangemoedig en genoeg tyd gegee om my enige vrae te
vra. Hierdie gesprek is in Afrikaans/*Engels/Oshiwambo gevoer en in _____
vertaal deur _____.



Handtekening van Ondersoeker

Appendix 7: Afrikaans Questionnaire

PERSEPSIES VAN MANS EN VROUE TEENOOR MANLIKE BESNYDING AS MIV VOORKOMING INTERVENTSIE IN DIE WINDHOEK DISTRIK

Agtergrond:

Drie verewekansigde proewe is uitgevoer en het gevind dat Manlike Besnyding 'n beskermende effek van 60% teen MIV het (CDC, 2008). As gevolg daarvan het die Wêreld Gesondheidsorganisasie (WGO) die opskaling van Manlike Besnyding as deel van die gesondheidsintervensies vir MIV voorkoming, spesifiek in lande met hoë MIV syfers, aangeraai.

Manlike Besnyding is ook bekend vir die volgende voordele:

- Dit verminder die risiko van Seksueel Oordraagbare Infeksies, en gevoglik die kanse vir MIV infeksie
- Dit korregeer penis abnormaliteite soos Fimose, en deur dit te doen word die vloei van urine vergemaklik
- Dit verminder ook die oordrag van Menslike Papilloomvirus (MPV) en beskerm dus vroue teen servikale kanker
- Dit help om kanker van die penis te voorkom
- Dit bevorder higiëne

DIE OPNAME VRAELYS

I. Demografiese en sosio-ekonomiese inligting

Reeksnommer:

Ouderdomjare

Geslag: Manlik↑ Vroulik↓ Huwelikstatus: Enkel/Getroud/Bly saam maar nie

getroud/Geskei/Uitmekaar/Weduwee/Wewenaar

Taal algemeen gepraat by die huis: Oshiwambo↑ , Engels↓ , Herero↑ , Afrikaans↑ , Damara/Nama↑ Ander_____

Vlak van opvoeding: Primêre skool (Grade 1-7) / Sekondêre Skool (Grade 8-12) / Tertiêre opvoeding (Universiteit/ Kollege)

Werkstatus: Werkend/ Werkloos/ Student

Geloof: Luthers/ Rooms Katolieke/Anglikaans/Apostolies/Ander _____

KENNIS, HOUDINGS EN PERSEPSIES, SOWEL AS HINDERNISSE

II. Kennis van manlike besnyding

Onderstreep of sirkel asseblief met pen/potlood

1. Manlike besnyding is die chirurgiese verwydering van 'n deel van, of die hele vel wat oor die kop van die penis JA/ NEE

2. Is jy besny? Ja..... (As antwoord ja is, gaan na vraag 3)
Nee..... (Gaan na vraag 6)
Nie van toepassing

3. Wat is die rede hoekom jy besny is? Kultureel/Tradisioneel
Vir gesondheid redes
Ek onthou nie

4. Was jy gesyn in jou: Kinderjare (Vanaf geboorte tot 13 jaar)
Adolesensie (14 tot 19 jaar) of
Volwassenheid (20 jaar en ouer)?

5. Waar is die besnyding gedoen? Hospitaal/ Gesondheidsfasiliteit / Tradisioneel / Ek weet nie

6. Weet jy dat manlike besnyding mans se risiko om Seksueel Oordraagbare Infeksies op te doen, verminder? JA /NEE

7. Weet jy dat besnyding die risiko vir MIV/VIGS verminder? JA/ NEE

8. Kanker van die penis is meer algemeen onder:
Besnyde mans
Onbesnyde mans
Geen verskil
Ek weet nie

9. Vroue loop die risiko vir servikale kanker wanneer hul maats:
Besny is
Onbesny is
Geen verskil
Ek weet nie

10. Higiëne van die penis is beter wanneer mans:

Besny is

Onbesny is

Geen verskil

Ek weet nie

11. 'n Besnyde man kan MIV opdoen as hy onbeskermde seks met geïnfekteerde vroue het: Stem saam / Stem nie saam

12. As jy die geleenthed aangebied word, sal jy jouself laat besny? JA /NEE

13. Indien antwoord NEE is, hoekom?

Bang vir die pyn?

Gaan dit teen jou kultuur?

Jy voel dis duur

Jy weet nie waarheen om te gaan

Geen rede

14. Is jy bewus van die komplikasies wat gepaard gaan met besnyding?

Pyn

Bloeding

Infeksie

Skending van die penis

Verlies van gevoel in penis

Ander_____

III. Houdings teenoor manlike besnyding

15. Sou jy aanraai dat jou seun besny word? JA /NEE /NIE VAN TOEPASSING

16. Sou jy aanraai dat jou maat besny word? JA /NEE / NIE VAN TOEPASSING

17. Indien besnyding gratis gedoen sou word, sou jy jouself laat besny?

Ja, ek sal daarvoor gaan

Nee, ek sal onbesny bly

Ek is reeds besny

Nie van toepassing

18. Gegewe die kostes van manlike besnyding, hoeveel dink jy moet daar gevra word vir besnyding dienste?

- Minder as N\$ 5
- Minder as N\$ 10
- Minder as N\$ 15
- Moet gratis gedoen word
- Ek weet nie

19. Sou jy aanraai dat manlike besnyding uitgevoer word by:

- Gesondheidsfasiliteit
- Tradisionele setting
- Albei
- Ek weet nie

IV. *Persepsies van manlike besnyding*

20. Seks is meer genotvol wanneer ‘n man:

- Besny is
- Onbesny is
- Geen verskil
- Ek weet nie

21. Vroue verkieë om seksueel te verkeer met mans wat:

- Besny is
- Onbesny is
- Dit maak nie rērig saak nie
- Ek weet nie

22. Seksuele genot word verminder wanneer ‘n man besny word

- Ek stem saam
- Ek stem nie saam nie
- Ek weet nie

23. Besnyding is vir jong mense, ouer mense hoef nie besny te word nie

Ek stem saam
Ek stem nie saam nie
Ek weet nie

V. *Hindernisse vir manlike besnyding*

24. Wat bekommer mense die meeste oor die aanvaarding van manlike besnyding?
- i. Veiligheid
 - ii. Pyn
 - iii. Toestemming van voorvaders
 - iv. Koste
 - v. Verafgeleë chirurgiese fasiliteite
 - vi. Vrees vir onbevredigende seksuele vervulling
 - vii. Ander

Appendix 8: Names and student numbers of the investigator assistants (UNAM students)

Ambinga Jacobina N.T. **200218760**

Kakili Olivia **201158965**

Muteka Christine **200954440**

Namupala Ndeshimona **200719963**

Shaduka Henry **200827090**

**Appendix 8: Letter of permission from the Ministry of Health and Social Services,
Republic of Namibia**



REPUBLIC OF NAMIBIA

Ministry of Health and Social Services

Private Bag 13198
Windhoek
Namibia
Enquiries: Ms. T. Kakili

Ministerial Building
Harvey Street
Windhoek

Ref: 17/3/3

Tel: (061) 2032552
Fax: (061) 222558
E-mail: tkakili@yahoo.co

Date: 23 July 2012

OFFICE OF THE PERMANENT SECRETARY

Ms. T.N. Nashandi
P.O.BOX 50441
Bachbrecht
Windhoek

Dear Ms. Nashandi

Re: Perceptions of men and women towards male circumcision as an HIV prevention intervention in Windhoek District, Namibia.

1. Reference is made to your application to conduct the above-mentioned study.
2. The proposal has been evaluated and found to have merit.
3. **Kindly be informed that permission to conduct the study has been granted under the following conditions:**
 - 3.1 The data to be collected must only be used for completion of your Master's Degree in HIV and AIDS;
 - 3.2 No other data should be collected other than the data stated in the proposal;
 - 3.3 A quarterly report to be submitted to the Ministry's Research Unit;
 - 3.4 Preliminary findings to be submitted upon completion of study;
 - 3.5 Final report to be submitted upon completion of the study;
 - 3.6 Separate permission should be sought from the Ministry for the publication of the findings.

Yours sincerely,

MR. ANDREW NDISHISHI
PERMANENT SECRETARY
REPUBLIC OF NAMIBIA
MINISTRY OF HEALTH AND SOCIAL SERVICES