

A study to establish the beliefs and expectations of adult males who enrol for Male Circumcision at Mariental State Hospital (Mariental District, Hardap Region, Namibia)

by

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Declaration

By submitting this assignment electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the owner of the copyright thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Dedication

I dedicate this work to my beloved family as follows; my newly wedded wife Mrs. Rauna T Kadenge; my parents Mrs. Junior Kadenge and the late Dr. Mark T Kadenge; my brother and sister, Tinei and Betty Kadenge respectively.

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Firstly I would like to acknowledge my Creator and heavenly father who gives me the wisdom and ability to do all things.

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Abstract

Background:

Since the launch of the Male Circumcision (MC) HIV prevention program in Mariental, Namibia, concerns have arisen that men in this community might start developing a false sense of protection against HIV and engage in risk compensatory behaviors after circumcision. Though the effectiveness of male circumcision as an HIV prevention strategy has been established, no conclusive remarks have been made as yet on the aspect of risk compensation after male circumcision. However, one study done in Kisumu Kenya was able to establish that men's beliefs and perceptions towards male circumcision do play a major role in determining how they are likely to behave after the procedure (Mattsony, Wilsonz & Xiong, 2011).

Objectives:

The objectives of this study were;

- To establish males who enrol for circumcision's knowledge and beliefs about MC.
- To identify what influenced their decision to enrol for MC.
- To establish males who enrol for circumcision's perception on MC and HIV prevention.
- To determine adult males' perceived lifestyle changes after male circumcision.

Methods:

This study was a cross sectional survey which employed quantitative methodologies to quantify the knowledge beliefs and expectations of adult males who came to enrol for male circumcision.

Results:

Findings from the study show that many adult males who come to enrol for male circumcision in Mariental do not recognise the importance of MC as an HIV prevention strategy. Most of them have the wrong perceptions about MC and HIV prevention. The

findings also show that men with wrong perceptions about MC and HIV prevention are more likely to engage in risk compensatory behaviour after MC.

Conclusion:

The launch of the male circumcision for HIV prevention in Mariental is a most crucial and significant development in curbing the spread of HIV in this part of Namibia. Current efforts need to focus on ensuring that men in our community have the correct understanding about MC and HIV prevention, so that they will enrol for the program with the right perspective, thus enabling them to focus on pursuing desired lifestyle changes after MC.

Opsomming

Agtergrond:

Sedert die bekendstelling van die Manlike Besnydenis (MC) MIV-voorkomingsprogram in Marienthal, Namibië, het besorgdheid ontstaan dat mans in hierdie gemeenskap 'n onjuiste sin van beskerming teen MIV kan begin ontwikkel en na besnydenis by risikokompenserende gedrag betrokke kan raak. Hoewel die doeltreffendheid van manlike besnydenis as 'n MIV-voorkomingstrategie gevestig is, is geen onweerlegbare uitlatings nog oor die aspek van risikokompensasie na manlike besnydenis gemaak nie. Een studie in Kisumu, Kenia, kon egter vasstel dat mans se oortuigings en persepsies oor manlike besnydenis wel 'n groot rol speel om te bepaal hoe hulle na die prosedure sal optree (Mattsony, Wilsonz & Xiong, 2011).

Doelstellings:

Die doelstellings van hierdie studie was:

- Om mans wat vir besnydenis aanmeld se kennis en oortuigings oor MC te bepaal.
- Om te identifiseer wat hulle beïnvloed het om vir MC aan te meld.
- Om mans wat vir besnydenis aanmeld se persepsie oor MC en MIV-voorkoming te bepaal.
- Om volwasse mans se waarneembare lewenstylveranderings na manlike besnydenis te bepaal.

Metodes:

Hierdie studie was 'n deursnee-opname wat kwantitatiewe metodes gebruik het om die kennis, oortuigings en verwagtings van volwasse mans te bepaal wat vir manlike besnydenis aangemeld het.

Resultate:

Die studie het bevind dat baie volwasse mans wat in Marienthal vir manlike besnydenis aangemeld het nie die belangrikheid van MC as 'n MIV-voorkomingstrategie ingesien het nie. Die meeste van hulle het verkeerde persepsies oor MC en MIV-voorkoming. Die

bevindings toon ook dat mans met verkeerde persepsies oor MC en MIV-voorkoming meer geneig is om hulle na MC aan risikokompenserende gedrag skuldig te maak.

Gevolgtrekking:

Die bekendstelling van manlike besnydenis vir MIV-voorkoming in Marienthal is 'n deurslaggewende en sinvolle ontwikkeling om die verspreiding van MIV in hierdie deel van Namibië te beheer. Huidige pogings behoort daarop te konsentreer dat mans in ons gemeenskap MC en MIV-voorkoming reg verstaan sodat hulle met die regte perspektief vir die program sal aanmeld om hulle sodoende in staat te stel om die gewenste lewenstylveranderinge na MC na te streef.

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List of abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Clinic
HIV	Human Immune-deficiency Virus
MC	Male Circumcision
MoHSS	Ministry of Health and Social Services
RCT	Randomized Control Trial
STI	Sexually Transmitted Infections
UNAIDS	Joint United Nation program for HIV/AIDS
VCT	Voluntary Counselling and Testing
WHO	World Health Organization

Chapter 1: Introduction, research problem and objectives of the study

1.1 Introduction

Male circumcision is the removal of the foreskin, the fold of skin that covers the head of the penis (Weiss, Quigley & Hayes, 2000). Male circumcision is widely practiced around the world for religious, traditional, and cultural reasons. In most traditions and cultures male circumcision is performed within the first two weeks after birth or at the beginning of adolescence as a rite of passage to mark the transition to adulthood (Doyle, 2005; Dunsmuir & Goldon, 1999; Marck, 1997). Male circumcision is also commonly performed for medical reasons to treat problems involving the foreskin, as well for personal hygiene or preventive health care.

1.2 Male Circumcision and HIV

While cross sectional epidemiological studies conducted since the mid-1980s have shown that circumcised men have a lower HIV prevalence than uncircumcised men, the World Health Organization (WHO) estimated that in countries of southern and eastern Africa with the highest HIV prevalence, male circumcision rates were generally less than 20% (UNAIDS, 2006). It has also been observed that geographical regions where male circumcision was commonly practised tended to overlap with areas of low HIV prevalence (Halperin & Bailey, 1999). Prompted by these trends, the UNAIDS performed a detailed analytical study to establish the link between Male circumcision and HIV prevalence; this study took in to account other social and cultural factors associated with male circumcision.

The study revealed that the principal determinants of high HIV prevalence were a low male circumcision rate and a high prevalence of genital herpes, which was found to be common among uncircumcised men (Auvert, Buve, Ferry, Carael, Morison, Largade, 2001)). Following these findings however, it was not yet clear as to whether promoting male circumcision among men would lower the incidence of HIV infection. This led to the launch of three randomized controlled trials in Kenya, Uganda and South Africa in 2004 in order to

establish the link between male circumcision and HIV infection. Findings from all the three RCT studies indicated that there is an estimated 60% reduction in the risk of heterosexual HIV transmission in adult males after male circumcision (Auvert, Taljaard & Lagarde, 2005; Bailey, Moses & Parker, 2007; Gray, Kigozi & Serwadda, 2007).

Following the publication of results from the three RCTs, the Joint United Nations Programme on HIV/AIDS (UNAIDS) and the World Health Organization (WHO) recommended that MC be recognized as an intervention for HIV prevention in countries with low MC rates, high HIV prevalence, and where heterosexual sex is the main route of transmission (WHO & UNAIDS, 2007).

Following this recommendation, most sub-Saharan African countries have now embarked on Male circumcision as one of their major HIV prevention strategies, and massive on-going campaigns for MC have been initiated throughout most of the sub Saharan region (Mattsony, Wilsonz & Xiong, 2011).

In Namibia (where the researcher is based), the Minister of Health and Social Services, Dr. Richard Kamwi made his first announcement in 2007, about the government's commitment in assessing the possible introduction of safe MC as part of the national HIV prevention strategy. By 2008 the Namibian government had established an MC Task Force² to lead the MC scale-up, (Katuta, 2009). The national male circumcision program in Namibia was eventually launched in August 2009, and this began with a series of training workshops for doctors, nurses and community counsellors from all 13 regions of the country. The trainings were shortly followed by massive community mobilisation campaigns for MC awareness throughout the country, and all the major health facilities in the regions have since begun performing male circumcisions, particularly targeting the HIV negative adolescent and adult males (though the program does not reject HIV infected males who wish to be circumcised).

Apart from HIV prevention, Male Circumcision also offers other potential benefits to its clients, such as improved hygiene, protection from certain STIs, reduced chances of penile cancer with possibly reduced chances of cervical cancer in the female partners and prevention of paraphimosis.

Mariental State Hospital (where the author is stationed) is one of the health facilities that have been designated to offer MC services to its community. The hospital is situated in the town of Mariental which lies in the Hardap region of Namibia, 280 km south of the capital city Windhoek.

1.3 Overview about Mariental

Mariental is a small town in Namibia situated about 280km south of the capital city, Windhoek. With a sparsely distributed population of 100 000, the town is vastly surrounded by farming land and in fact most of the population it serves are scattered on the farms. However, the town also supports a fishing industry as it is situated close to the Hardap dam, which is the largest dam in Namibia. Mariental also lies along the B1 highway which leads to the South African boarder post, and hence it is a transit town for most long distance travellers travelling to and from South Africa. Some of these travellers include truck drivers, bus passengers & drivers, tourists and other private motorists.

Numerous factors in this town have been identified to be promoting the spread of HIV, hence the reason for intensifying Male Circumcision (and other HIV prevention campaigns) in this community. One of the major factors that have identified to be fuelling the spread of HIV in Mariental is the transit nature of this town. Mariental lies approximately midway between Windhoek and Keetmanshop which is the next major town south of the capital along the BI highway to South Africa. This makes Mariental a most preferred stop over point for most of the long distance travellers who frequently stop over at one of the major service stations which apart from being conveniently located along the highway, the station also offers a

number of facilities of convenience to travellers such as the restaurant, ATM, airtime machines, mini supermarket and clean toilets.

This service station however also attracts a number of local residents; most residents come to make use of the facilities at the service station. Other residents are informal traders who come to sell things like airtime vouchers; some of them sell various local products particularly targeting the tourists; others come from the nearby farms they also sell some of their farm produce such as water melons, oranges etc. The service station is also a convenient place for local hitchhikers who come and wait around for lifts from the vehicles in transit. This environment creates a setting where many groups of people have opportunities to meet and mingle with each other informally, and these include the travelers (bus drivers, truck drivers, taxi drivers, passengers) and the local residents (farm workers, other informal traders, hitchhikers, local sex workers etc.). Frequently, these informal meetings have created opportunities for high risk sexual behavior patterns to be displayed, particularly with vulnerable groups of people such as the long distance truck drivers whose long working shifts allow them very little time to be with their spouses and families at home.

Other factors that have contributed to the spread of HIV in Mariental include the seasonal migration of farm laborers between the different farming seasons, which have frequently led to the occurrence of multiple concurrent sexual partnerships. Transmission of sexually transmitted infection is also very high among the farm laborers, and most of them usually present very late to the health facilities for treatment. Untreated STIs also contribute significantly to the spread of HIV among farm workers. Due to the vast and remote locations of the farms, mobile clinics have been unable to access many farm laborers for routine screening, early diagnosis and treatment of STIs. Similarly, condom access and distribution have not been adequately achieved due to the remoteness of most farms.

In addition to the factors highlighted above, Mariental is not spared from other global factors contributing to the spread of HIV in most of the sub Saharan region, which include poverty,

lack of education, alcoholism, drug abuse, gender inequality and most recently noted is the low male circumcision rate.

Mariental is one of the many communities in Namibia where male circumcision has not been traditionally practised and this may have contributed significantly to the spread of HIV in this region. Even with the recently launched MC program and campaign, the male circumcision rate is still relatively low in comparison to the HIV burden.

1.4 Research problem

Whilst the benefits of MC have now been well appreciated in Mariental, one of the major concerns that have been raised since the launch of the MC program in Mariental is the issue about the effect of MC on high risk sexual behaviour. A key concern is that promoting MC may lead circumcised men to develop a false sense of complete protection against HIV and engage in risk compensation by halting or decreasing previous protective behaviours such as condom use or partner reduction; men who have been circumcised might become keener to visit sex workers, and women might find it harder to insist on condom use to their circumcised partners. Overall the benefits of MC in the prevention of HIV may become reduced or even negated if people get the wrong message or if they interpret the message incorrectly. Currently we do not know the beliefs and expectations of males who come to enroll for Male Circumcision in Mariental.

1.5 Research question

What are the beliefs and expectations of adolescent of adult males who come to enroll for Male Circumcision in Mariental?

1.6 Significance of the study

The expectations of males with regard to Male Circumcision will largely influence how they behave after having undergone the procedure. For instance, if the general expectation of males is that they will have extremely low chances of getting infected with HIV after

circumcision, chances are that they may indulge in risky behavior due to the perceived sense of protection. This increased risk exposure might outweigh the intended benefits of male circumcision. Hence if we get to know the beliefs and expectations of male clients as they enroll for MC, we will get an opportunity to identify and correct any misconceptions they have about MC, and hence prevent the potential disastrous consequence of fuelling the spread of HIV instead of preventing it.

Men's expectations may be influenced by a number of factors, which include the message they receive from the MC program, their interpretation of this message, as well as their traditional, cultural and religious beliefs about male circumcision. Hence knowing these beliefs will also give us an opportunity to review our communications about MC so as to ensure that our community is receiving the correct message, as well as to link up with community leaders (traditional, cultural and religious) who will help us clear all the myths and misconceptions about male circumcision.

1.7 Aim of the study

The aim of this study is to establish the beliefs and expectations of adolescent and adult males who come to enrol for male circumcision at Mariental State Hospital as well as to evaluate the effectiveness of MC counselling in correcting wrong perceptions about MC. This is in order for us to evaluate message conveyed by our MC campaign and to review the content of our MC counselling.

1.8 Objectives

- To establish males who enrol for circumcision's knowledge and beliefs about MC.
- To identify what influenced their decision to enrol for MC.
- To establish males who enrol for circumcision's perception on MC and HIV prevention.
- To determine adult males' perceived sexual lifestyle changes after MC.

Chapter 2: Literature review

2.1 Background about male circumcision in Namibia

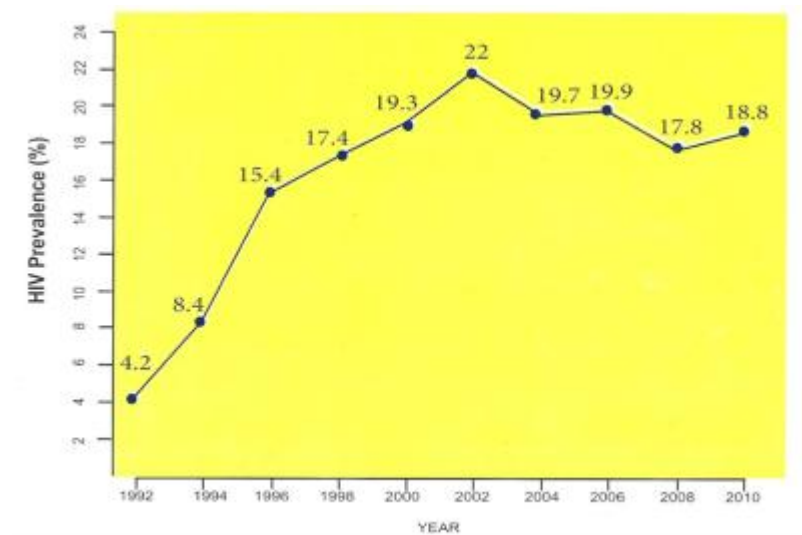
Namibia is one of the sub-Saharan countries with relatively low male circumcision prevalence. Preliminary results from the 2006–2007 Namibia Demographic and Health Survey (NDHS) indicate that 21 percent of 15–49-year old men reported being circumcised, varying by region from 1 percent in Ohangwena to 57 percent in Omaheke (MOHSS, 2008). This is low prevalence in male circumcision has been linked to a number of historical, political and social factors.

The original inhabitants of the land of Namibia primarily consisted of the Khoi San people such as the Nama and the San; these people did not perform ritual circumcision as part of their cultural practices (Pappas-DeLuca, Simeon, Kustaa, Halperin, 2010). Today the Nama and San populations predominantly occupy the southern and eastern parts of Namibia where the male circumcision prevalence remains relatively low. The town of Mariental, where the researcher is based, also lies in the southern region of Namibia and is predominantly occupied by the Nama population.

Occupying the Northern parts of Namibia predominantly are the Bantu speaking people who migrated from the central African regions and settled in this area (Pappas-DelUCA et al., 2010). Though male circumcision was an integral cultural practice of the Bantu speaking people, some social developments among these populations also led to the decline of male circumcision. According to Pappas-DelUCA, one of the significant contributing factors to the decline in male circumcision among the Bantu people was the issue of divine kingship amongst the Ovambo kingdoms (Pappas-DelUCA et al., 2010). For instance, in some of these kingdoms, the loss of blood was regarded as a bad omen, and this was so much to the extent that even kings could not be circumcised as it was a taboo for a divine person to loose blood (Pappas-DelUCA et al., 2010). In other kingdoms during times of war, Kings preferred all their young males to be available for battle, and so they would often do away with the rites of

passage ceremonies which included ritual circumcision (Pappas-Deluca et al., 2010). Saslowski submitted that the practice of male circumcision was abolished by two kings who were known to have consolidated kingship among some Owambo kingdoms for the reason that circumcised men were a threat to these kings (Saslowski, 2006). However, Iipinge & Shitundeni (1999) believe that the decline of male circumcision was mainly associated with the introduction of Christianity, which discouraged many of the traditional practices among the Oshiwambo tribes, including male circumcision. These are just some of the submissions from different authors on how social developments may have led to the decline of Male circumcision among the Bantu people who migrated and settled in the northern regions of Namibia, hence the low MC prevalence in this part of the country.

The factors discussed above to a certain extent help us to understand why the overall prevalence of male circumcision in Namibia has remained relatively low, and this may have been a significant contributing factor to the increase in the national HIV prevalence over the past 2 decades, which rose rapidly from 4% in 1992 to its highest peak of 22% in 2002 (MoHSS, 2010). Since then, the HIV prevalence has been declining gradually, and the latest HIV sentinel survey conducted in 2010 estimated the adult HIV prevalence in Namibia to be 18.8% (MoHSS, 2010); this decline has been attributed to the regional and nationwide acceleration of HIV prevention campaigns as well as the establishment of a number of prevention programs including Male Circumcision (MoHSS, 2010).

Figure 1: National HIV prevalence estimates in Namibia (MoHSS, 2010)

2.2 Knowledge and beliefs about male circumcision in Namibia and the surrounding region

A number of studies have been conducted across the continent which explored the knowledge, attitudes, and beliefs about male circumcision for the prevention of HIV infection. However, the research done in Namibia thus far has been rather limited. Two studies conducted in Namibia explored the knowledge, attitudes, and beliefs about MC among the Namibian population; one of the studies was a quantitative research conducted in the form of questionnaires and interviews among the VCT clients at the main district hospital in Onandjokwe, which is situated in the northern part of Namibia.

The second study was a qualitative research on MC which had a much broader coverage spanning across 8 of the 13 regions in Namibia; the study was conducted in the form of focus group discussions with the general public as well as key informant interviews with MC stakeholders. Both studies explored the various aspects with regard to the Namibian population's knowledge and attitudes about Male Circumcision. Some of the aspects reviewed included the knowledge and attitudes about MC and HIV prevention; knowledge and appreciation about other benefits of MC; and finally the level of acceptability of MC. We will

now review the findings from the two studies done in Namibia, and we will compare these with findings from similar studies done regionally outside Namibia.

2.2.1 Knowledge and beliefs about MC and HIV prevention

The two studies done in Namibia confirmed good knowledge about MC and HIV among the study groups, with more than 60% of participants in the quantitative study done at Onandjokwe acknowledging the association between MC and reduced risk of acquiring HIV and STIs (Ngodji, 2010). However in both studies few respondents held the perception that MC provides complete protection from HIV infection (Ngodji, 2010; Pappas-Deluca et al., 2010), and a small proportion of key informants in the qualitative study saw no link between male circumcision and protection against HIV transmission (Pappas-Deluca et al., 2010).

On the other hand, research done outside Namibia has shown that although many communities associate MC with better hygiene and prevention of STIs, the association between MC and HIV prevention is less evident (Ngodji, 2010). In a study done in Zimbabwe on the acceptability of adult MC for STI and HIV prevention, only 7% of the men interviewed had heard about the association between MC and the reduction of HIV/AIDS whilst 80% knew about other benefits of MC such as reduction of STIs and penile hygiene (Halperin, Fritz, McFarland & Woelk, 2005). Another study done in Swaziland yielded similar findings; only 18 % of participants believed that MC reduces the risk of HIV infection whilst 81% knew believed in the reduced risk of STIs after MC.

2.2.2 Appreciation of other benefits of MC

The studies done in Namibia give a fairly good indication that the level of appreciation of other benefits of MC apart from HIV risk reduction is high in Namibia. Findings from the Onandjokwe quantitative study revealed that nearly 80% of men acknowledged that MC improves penile hygiene whilst key informants in the qualitative study also cited a number of health benefits including hygiene and disease prevention (Ngodji, 2010; Pappas-Deluca et al., 2010). However, a considerable proportion of respondents from both studies also expressed

the belief that Male Circumcision enhances sexual pleasure and that women prefer men who are circumcised to those who are not (Ngodji, 2010; Pappas-Deluca et al., 2010).

Elsewhere outside Namibia, many societies have traditionally associated MC with penile hygiene (Ngalande, Levy, Kapondo, Bailey, 2006; Niang, Boiro, 2007). A qualitative study done in two west African countries, Senegal and Guinea-Bissau, revealed that the penile foreskin was commonly associated with dirtiness, disease and in some cases evil; this was so much to the extent that any sexual relations between an uncircumcised men and a woman who is a female were perceived to cause an ‘AIDS like’ illness (Niang, Boiro, 2007).

2.2.3 Level of acceptability of MC

In Namibia, findings from the qualitative MC research done revealed a high degree of acceptability of male circumcision, with reasons ranging from cultural, to medical (disease prevention, hygiene), to social (sexual pleasure prerequisite to marriage, etc.) types of convictions (Pappas-Deluca et al., 2010). 75.5% of respondents in the quantitative study in Onandjokwe indicated that they were willing to be circumcised if circumcision reduced the chances of HIV infection and was offered at lower cost (Ngodji, 2010). Findings from the two studies done in Namibia were consistent with a high level of acceptability of MC.

In a review of 13 other studies done outside Namibia within the sub Saharan region, the acceptability of male circumcision for HIV prevention in 9 countries was analyzed. Though there was considerable variation in the level of MC acceptability between different countries, ranging from 29% in Uganda to 87% Botswana, the overall findings for the region were consistent with a high level of acceptability of MC; overall, the median proportion of men who were willing to be circumcised across the region was 65%, whilst 69% of the women also favored circumcision for their partners. In addition to this, 71% of men and 81% of women were willing to circumcise their sons (Westercamp, Bailey, 2007). Similar to the findings in Namibia, studies from 6 African countries indicated that many men would willingly undergo circumcision if it could be performed safely at reasonable cost (Smith,

Moses & Hudgens, 2010). In other societies being uncircumcised is actually regarded as unacceptable mainly because it is believed to cause disease (Ngodji, 2010).

Research has also show that the knowledge about the benefits of MC is an important determinant of acceptability of the procedure in non-circumcising societies (Ngodji 2010). In one study done in the Dominican Republic, the number of men willing to be circumcised increased to 67% after an information session compared to 29% before the information session explaining the benefits of the procedure (Brito, Caso, Balbuena & Bailey, 2009). In a similar study done in Botswana, acceptability levels for MC increased from 61% to 81% after information sessions had been given about the health benefits and the risk associated with the procedure (Kebaabetswe, Lockman, Mogwe, 2003).

2.3 Do attitudes and beliefs about MC influence risk behavior?

In a longitudinal randomized controlled trial conducted in Kisumu, Kenya, emphasis was made on the role of beliefs in determining risk compensation after male circumcision. This trial yielded interesting findings; firstly, contrary to the presumption of risk compensation, it was found that those males who perceived male circumcision to be protective from heterosexual HIV transmission tended to engage less in risky sexual behaviour. Secondly however, independent of the beliefs and perceptions mechanism, male circumcision appeared to be associated with riskier sexual behaviour; this implies that circumcision may actually lead to increased risky sexual behaviour among individuals who do not believe in its protective effect (Mattson et al, 2011). The findings from this trial are very encouraging in the light of our MC program, because the current campaigns for MC are structured to make our community well informed about MC, such that only few individuals who choose to receive circumcision will fail to believe in its protective effects.

2.4 Risk compensation after male circumcision

In Namibia no studies have been done on risk compensation after male circumcision. Few studies on risk compensation after male circumcision have been done in other parts of Africa, and have yielded interesting findings.

According to a Randomized Controlled Intervention Trial of Male Circumcision for Reduction of HIV Infection Risk, which was carried out in South Africa in 2005, it was found that the intervention group (circumcised males) had significantly more sexual contacts as compared to the control group (Auvert et al,2005). This finding will be of great concern if male circumcision is being implemented as a means of preventing HIV infection.

A similar study was done in Uganda in 2007, and it yielded different findings. According to this study, there was no difference in the behaviours of circumcised males and uncircumcised males during follow up. The implication of this study is that male circumcision will achieve its intended purpose in reducing the risk of heterosexual HIV transmission in males, provided that the behaviour remains the same (Gray, Kigozi, Serwadda, 2007). A prospective cohort study done in the Siaya and Bondo districts of Kenya also yielded similar findings; they found no increase in risky sexual acts by men after circumcision compared with uncircumcised controls (Plotkin, Mziray, Küver, Prince, Curran, Mahler, 2011). However, bearing in mind that males need to abstain from intercourse for a minimum period of 6 weeks after circumcision so as to benefit from the protective effect of male circumcision from HIV, any engagement in intercourse within this six week period may actually put circumcised males at more risk of acquiring HIV, because their wounds are not yet completely healed. It is not clear whether this aspect was taken in to consideration during the two trials in Uganda and Kenya; if both studies reported no change in behaviour after circumcision, this could imply that circumcised males continued to engage in sexual encounters before they were completely healed, and hence were at more risk of acquiring HIV.

Considering the varied nature of the findings from studies done on risk compensation after MC in different parts of the continent thus far, no conclusive statements can be made about risk compensation after MC. However, the Kisumu trial in Kenya has revealed that people's beliefs and perceptions with regard to MC seem to play a major role in determining how they behave after the procedure (Mattson et al, 2011). The focus of this study will be to determine the beliefs and perceptions of males who come to enrol for circumcision at Mariental State Hospital

Chapter 3: Research methodology

The methodology which I employed for this study was structured as follows;

3.1 Study design

This was a cross sectional survey which employed quantitative methodologies to quantify the knowledge beliefs and expectations of adult males who came to enrol for male circumcision.

3.2 Study area

The study was conducted at Mariental State Hospital which is situated in the Hardap region of Namibia.

3.3 Study setting

With the permission from the hospital management, a private consultation room adjoining the male circumcision clinic was allocated for the purpose of this study. The room had adequate lighting along with an office table and two chairs. Clients from the MC clinic who volunteered to participate in the study were referred to this room individually for further preparatory counseling before signing the consent form to participate. The research questionnaire was also administered and completed in this room. This setting was most convenient in that it allowed for easy access from the MC clinic but at the same time created a private atmosphere for those who had volunteered to participate in the study.

3.4 Study population

All adult males aged 18 years and older who came to enroll for male circumcision at Mariental State Hospital were eligible to be included in this study.

3.5 Sample size and sampling strategy

Due to the low turnout rate of adult males enrolling for male circumcision Mariental State Hospital, all the adult male circumcision clients who volunteered to participate in the study

were included. A total of 33 male circumcision clients participated in the study; the originally intended sample size of 40 could not be reached.

3.6 Data collection

An anonymous semi structured questionnaire with 18 open and close-ended questions designed by the researcher (Appendix 3) was used to collect information from participants. The questionnaire was originally developed in English but it had translations in the three languages most spoken locally, Afrikaans, Oshiwambo and Nama; the translations were done by translators from the University of Namibia's Department of African Languages. Participants were allowed to complete the questionnaire individually in the language of their choice and no time restrictions were imposed. Participants were also allowed to seek clarity on any part of the questionnaire which they did not understand and were at liberty to skip any questions which they did not feel comfortable to answer; most participants were able to complete the questionnaire within 15 – 20 minutes.

3.7 Data analysis

I analysed my data using a statistical computer software program SPSS19 for data analysis. Participant responses from the questionnaires were categorized, coded and then entered into the computer software. Statistical analysis consisted mainly of establishing the frequencies and percentages of the different response categories given for each question on the questionnaire. Correlational analysis of these percentages enabled us to establish the level of understanding and common perceptions about MC and HIV prevention amongst our participants, weighing them against their different socio-demographic backgrounds.

The primary aim of this analysis was to determine participant's level of knowledge about HIV prevention, their level of awareness about male circumcision, the extent to which they perceive that MC will protect them from HIV and the extent to which they are willing or unwilling to engage in risky behaviour after male circumcision.

3.7.1 Ethical considerations

This research study was identified to have potential risk which and hence ethical clearance had to be obtained from the Research Ethics Committees of the Ministry of Health and Social Services in Namibia, the Department of Health in South Africa, and from the University of Stellenbosch's Ethics Committee (Appendices 5 and 6). A mitigation strategy (Appendix 1) had to be in place before ethical clearance could be granted. Institutional permission to carry out the study at Mariental State Hospital was granted by the Principal Medical Officer (Hospital Superintendent) of the hospital (Appendix 4).

3.7.2 Informed consent

This study was done strictly on a voluntary basis. The informed consent form (Appendix 2) was presented and explained to each volunteer before they participated in the study. A brief preparatory counselling session was given to each participant by the researcher; the session was designed to give participants more information about the study and to help them understand the consent form and its implications. The consent form contained information which among other things outlined the nature of the study, the purpose of the study, the potential risks and benefits of participating in the study and issues of confidentiality. The consent form also made provisions for participants to withdraw from the study at any point without any penalties being imposed on them. Participants were allowed time to ask questions and/or seek any further clarity regarding informed consent before they signed consent form.

3.7.3 Privacy and confidentiality

Privacy and confidentiality was ensured by allowing participants to complete their questionnaires individually and privately in the room which was allocated for this study. The questionnaires were completely anonymous and upon completion, each questionnaire was filed immediately and stored in a lockable filing cabinet which could only be accessed by the researcher. All necessary precautions were taken to ensure that the questionnaires were not accessible to any other person. When reporting the results, care will be taken not to report the findings in any way that will enable the participants to be identified.

Chapter 4: Results of the study

This chapter presents the findings of the study. A total of 75 adult males participated in this study between 15 July 2013 and 10 August 2013. Only 39 participants were able to respond to all the questions on the questionnaire whilst the remainder of participants was only able to complete the questionnaire partially. However all participants were able to respond to at least 90% of the questions, and none of the questionnaires were spoiled.

The findings are presented as descriptive summaries, simple percentages, means, and tabulations. The chapter is divided into five main sections. A description of the study sample is presented in the first section. The second section deals with participants' knowledge about MC and will also explore on where they heard about the current MC program, their understanding about the purpose of this program and why they enrolled. In the third section we will evaluate the participants' knowledge and understanding about HIV. In section four we will explore their perceptions about MC and HIV prevention; this will include an evaluation of their expectations and perceived lifestyle changes after MC. Finally in section five we evaluate participant's other anticipated benefits from MC besides HIV prevention.

4.1 Socio demographic information

4.1.1 Age distribution

Though 9 participants in our study sample did not indicate their ages on the questionnaire, care was taken to ensure that all the participants who consented to participate in this study were at least 18 years of age or older . The ages of the 66 participants ranged from 18yrs up to 64yrs; the mean age for this group was 28 years, the modal age was 23 years and the median age was 25.5 years. The majority, 29 (44%) of the participants were aged between 25 and 34 years. Tables 1 and 2 below summarize the age distribution in our study sample.

Table 1: Age of respondents (N=66, age not indicated=9)

Age in Years	Frequency	Percentage
18 - 24	28	42.4%
25 - 34	29	43.9%
35 - 44	5	7.6%
45 - 54	3	4.6%
55 +	1	1.5%
TOTAL	66	100.0%

Table 2: Age distribution

Age in years (n = 75, missing age = 9)								
Observations	sum	Mean	Variance	Standard Deviation	Minimum age	Median age	Maximum age	Modal age
66	1853	28.1515	82.6536	9.0914	18	25.5	64	23

4.1.2 Partner status

Out of 74 for respondents 59 participants (79.7%) indicated that they were single whilst only 9 participants (12.2%) were married. 5 participants (6.8%) indicated that they were living together (cohabiting) with a partner and one participant (1.4%) was divorced. These findings are summarized in Table 3 below.

Table 3: Partner status of respondents (N=74, not indicated=1)

Marital Status	Frequency	Percentage
Divorced	1	1.4%
Living together	5	6.8%
Married	9	12.2%
Single	59	79.7%
TOTAL	74	100.0%

4.1.3 Educational status

Only 55 participants indicated their educational status; out of this these respondents 21 (38.2%) had attained post-secondary (tertiary) education, 32 (58.2%) had attained secondary school education whilst 2 participants (3.6%) had primary school education. Table 4 below summarizes the educational status of our study sample.

Table 4: Level of education (n = 75; not indicated = 20)

Educational Level	Frequen cy	Percen t
Primary Education only	2	3.6%
Secondary Education up to grade 10	11	20.0%
Secondary Education grade 11 and 12	21	38.2%
Post-Secondary Education (tertiary)	21	38.2%
TOTAL	55	100.00 %

4.1.4 Religion or faith

All 64 participants who responded to this question were of the Christian faith, though falling under different Christian denominations.

4.2 Knowledge and perceptions about MC and the current MC program

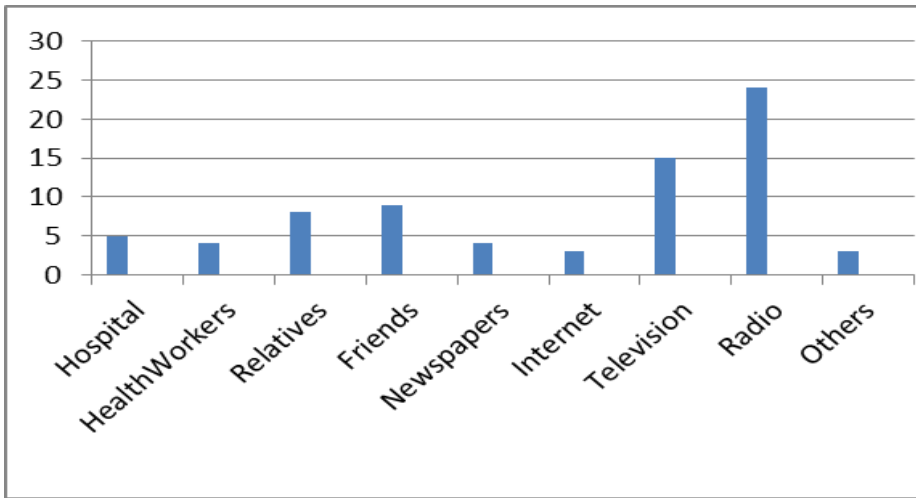
4.2.1 Participants' knowledge about MC

The entire study sample was drawn from clients who had voluntarily enrolled for the male circumcision program, and hence apart from the 3 participants who did not respond to this question, all respondents had a fairly good basic understanding of what male circumcision is and how it is performed. 27 (36.0%) of the participants came from traditionally circumcising cultural backgrounds; however, only 3 participants in the entire study sample cited tradition or culture as their primary reason for enrolling for this program (section 4.2.4).

4.2.2 Source of information about MC program

The majority of participants came to know about the MC program for HIV prevention through media coverage of the on-going MC campaign and the commonest media sources were by means radio and television; 24 (32.0%) of the participants first heard about this campaign through the radio whilst 16 (20.0%) heard about the campaign on television. Print media seemed to play a less significant role with only 4(5.3%) of the participants reporting having known about the campaign through the newspapers and 3 (4.0%) through internet.

Apart from the media, other less common sources of information about the MC campaign were the friends and relatives, from which 9(12.0%) and 8(10.7%) of the participants were informed about this campaign respectively. Only 6% of the participants first knew of this campaign through the health facilities.

Figure 2: Sources of information about male circumcision program

4.2.3 Perceived aim and purpose of the current MC program

Out of the 72 participants who responded to this question only 23 (30.7%) of the participants correctly stated the primary aim of the current MC program as being for HIV prevention; the vast majority of participants seemed to be unclear as to what the exact aim and purpose of the program was and most of them gave vague responses such as ‘to promote safe sex’ or ‘to prevent infections or illnesses’.

4.2.4 Participants’ primary reason/s for enrolling for the MC program

Out of 72 respondents, only 22 participants (30.6%) stated HIV prevention as their primary reason for enrolling for the MC program; 9 participants (12.5%) stated that their main reason for enrolling in this program was for STI prevention whilst 6 participants (8.3%) stated ‘safe sex’ as their primary reason for enrolling. 28 other participants (38.9%) gave health and/or hygiene as their primary reason/s for enrolling for program but without specifying further. Overall 65 (90.3%) of the all primary reasons given for enrolling for MC were related to health or hygiene. Only 7 respondents (10.7%) gave reasons that are non-health related; amongst them 2 respondents (2.8%) enrolled mainly for the purpose of enhancing their sexual performance whilst 2 others (2.8%) believed that MC will improve their fertility and the last 3

respondents (4.2%) enrolled simply because they believed that it was socially and culturally acceptable to be circumcised. These findings are summarized in Figures 3a and 3b below.

Figure 3a: Primary reasons given for enrolling for male circumcision

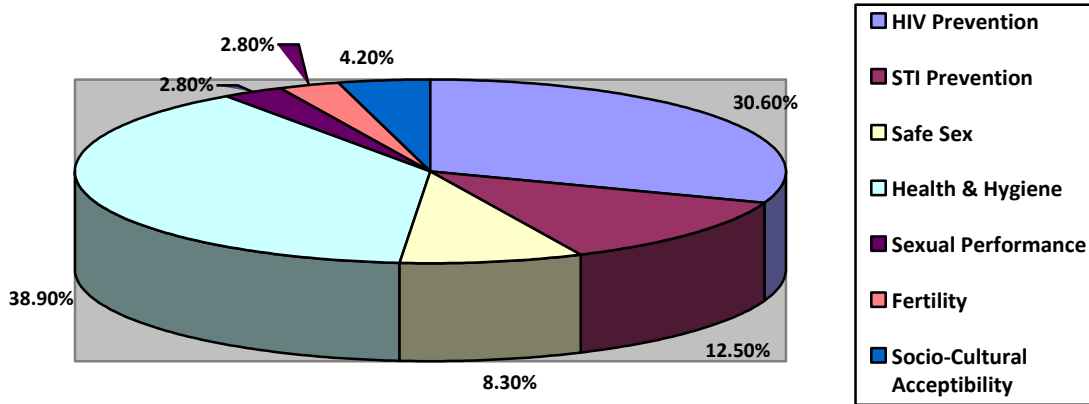
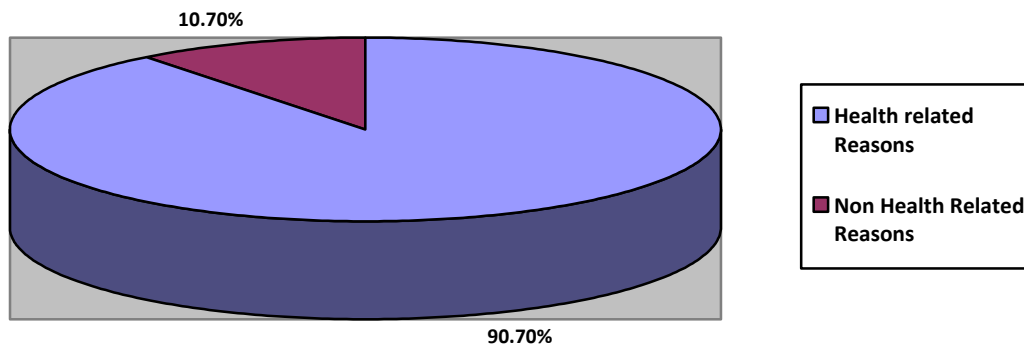


Figure 3b: Primary reasons given for enrolling for male circumcision



4.3 Participant’s knowledge and perception about HIV

Understanding our participants’ background knowledge about HIV will help us to appreciate how they would regard MC as an HIV prevention strategy; hence as part of evaluating their beliefs and perceptions about MC, the study also assessed their basic knowledge on HIV and HIV prevention.

4.3.1 Basic understanding about HIV

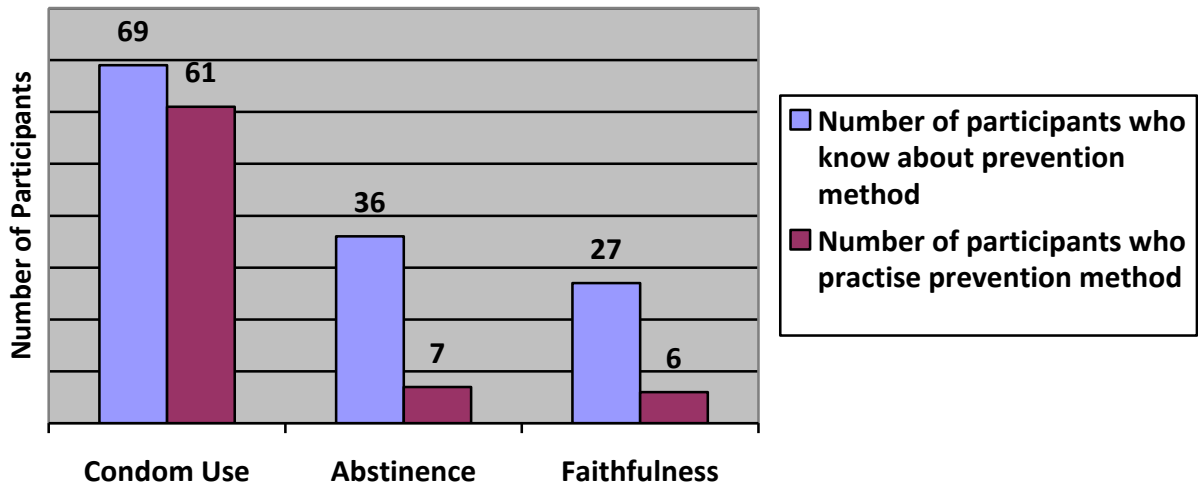
Out of 72 respondents 68 (94.4%) had the correct basic understanding of what HIV is and what it causes; in more or less similar terms they all described HIV as the virus which causes or which is responsible for AIDS. 5 participants (10.0%) proceeded further beyond this definition and stated what the letters HIV and AIDS stand for and among these 5 participants one went on to explain further that having HIV infection does not necessarily mean that one suffers from AIDS but that the disease progresses over a period of time up to such a stage that the body's immune system ceases to function normally.

4.3.2 Knowledge and understanding about HIV spread and prevention

Participants displayed good knowledge about the spread and prevention of HIV and nearly all participants were able state at least two or more routes of HIV transmission. Sexual transmission is the route of spread that was known by most participants and this was listed by 69 participants (92.0%). Other routes of transmission listed were blood transfusion which was listed by 38 participants (51.7%), sharing of needles which was listed by 30 participants (40.0%); the least known route of transmission among participants was mother to child transmission which was listed by only 6 participants (8.0%).

The HIV prevention method which is known to most participants is condom use which was listed by 69 participants (92.0 %); however only 61 participants (81%) reported that they have used condoms consistently for the purpose of HIV prevention. Abstinence from sexual intercourse was listed by 36 participants (48.0%); however only 7 participants (9.3%) reported having practised abstinence for the purpose of HIV prevention. Similarly, faithfulness to one partner was listed by 27 participants (36.0%) as an HIV prevention method; however only 6 participants (8.0%) reported having put this in to practice. These findings would seem to indicate that though knowledge about HIV and its prevention is essential, it does not necessarily translate into HIV preventive behaviour. Figure 4 below helps to us to visualise the discrepancies that exist between the knowledge and practice of common HIV preventive behaviours.

Figure 4: Disparities between the knowledge and practice of common HIV prevention methods



4.4 Knowledge and perception about MC and HIV prevention

From the figures presented thus far it is probably already apparent that though participants enrolled voluntarily for the MC for HIV prevention program, only few of them seem to recognize the importance of MC as an HIV prevention strategy. Firstly, only 23 participants (30.7%) out of a group of 75 correctly identified the primary aim of the current MC program as being for HIV prevention (section 4.2.3). Secondly, though over 90% of participants enrolled in MC for health related reasons, only 29% (22 participants) specifically mentioned HIV prevention as their primary reason for enrolling in this program (section 4.2.4). In this section we evaluate participants' beliefs and perceptions with regard to MC and HIV prevention.

4.4.1 Perception on degree of protection from HIV after MC

Out of 69 respondents, 52 participants (75.4%) believed that MC reduces the risk of heterosexual HIV transmission. However, only 30 participants (43.5%) correctly perceived that after MC their risk of acquiring HIV sexually would be reduced by 60%. 15 participants (21.7%) perceived that after MC they would be fully protected from HIV whilst on the other

hand 8 participants (11.6%) did not believe that MC would offer them any protection from HIV sexual transmission. 7 participants (10.1%) believed that their risk of acquiring HIV sexually would only be reduced by 40%.

4.4.2 Perceived lifestyle changes and precautionary measures against HIV after MC

Out of 70 respondents, 58 participants (82.9%) indicated that after MC they will take more precautionary measures to guard themselves from HIV infection. Amongst these 58 participants, 28 (40%) were determined to be more faithful to their partners after MC, 16 others (22.9%) were more content with consistent condom use after MC and only 3 participants (4.3%) stressed that they will practise abstinence more after MC. 11 participants among the 58 did not specify what precautionary measures they will observe more post MC. Among the 58 participants who were going to take more precautions, 50 (71.4%) were confident that they were always going to put into practise their perceived precautionary lifestyle changes against HIV infection, whilst 5 participants (7.1%) thought that they would only be able to practise these measures sometimes.

On the other hand, 8 participants (11.4%) indicated that they will not pursue any lifestyle or precautionary behaviour changes after MC whilst 4 participants (5.7%) indicated that after MC they will take fewer precautionary measures to guard themselves against HIV infection after MC.

4.5 Other perceived benefits of MC apart from HIV prevention

4.5.1 Penile hygiene

62 (89.9%) out of 69 respondents believed that MC would improve their penile hygiene whilst only one (1.5%) out of the 69 respondents did not believe in improved penile hygiene after MC. The remaining 6 respondents (8.7%) indicated that they were uncertain or did not know whether their penile hygiene would improve after MC. Penile hygiene was the most appreciated health benefit of MC in our study sample, and in fact more participants indicated

penile hygiene as their primary reason for enrolling for MC than those for HIV prevention (section 4.2.4).

4.5.2 STI prevention

47 (72.3%) out of 65 respondents believed they would be at less risk of acquiring STIs after MC. 8 (12.3%) out of 65 respondents did not believe that MC would offer them any protection from STI. The remaining 10 participants (15.4%) out of 65 indicated that they were unsure or did not know whether there was any relationship between MC and STI prevention.

4.5.3 Prevention of penile cancer

45 (70.3%) out of 64 respondents believed that they would be at less risk of developing penile cancer after MC. 3 (4.7%) out of 64 respondents did not believe that MC would offer them any protection from developing penile cancer and the remaining 16 (25%) out of 64 respondents were unsure or did not know how MC would affect their risk of developing penile cancer. The association between MC and penile cancer was the least known amongst all the health related benefits of MC listed within our study sample.

4.5.4 Fertility and sexual performance

Fertility as well as sexual pleasure and performance are amongst some of the benefits which are most commonly wrongly associated with MC in many communities. 21 (32.8%) of 64 respondents within our study sample believed that MC would help them to achieve a stronger erection whilst 34 (50.7%) of 67 respondents were convinced that their sexual pleasure would be enhanced after MC. In addition to this, 44 (65.7%) of 67 respondents also expressed the belief that women would be more attracted to them after they were circumcised.

As far as fertility is concerned, 11 (17.2%) of 64 respondents believed that MC would improve their chances of fertility whilst 32 (50.0%) of the 64 respondents did not believe any

association between MC and fertility. The remainder of the respondents were uncertain as to whether or not there is a link between MC and fertility.

Chapter 5: Discussion and analysis of results

In this chapter we will discuss the findings presented in the Chapter 4.

5.1 Male who enrol for MC's beliefs about MC

The study has shown that male's beliefs and attitudes about MC vary considerably. Though most adult males associate MC with Health, Hygiene and STI prevention, the association between MC and HIV prevention seems less significant as only 30.7% of participants were able to recognize the primary aim of the recently launched MC program as being for HIV prevention (section 4.2.3) and only (30.6%) stated HIV prevention as their primary reason for enrolling for the MC program (section 4.2.4).

Research done outside Namibia has also shown that although many communities associate MC with better hygiene and prevention of STIs, the association between MC and HIV prevention is less evident (Ngodji, 2010). In a study done in Zimbabwe on the acceptability of adult MC for STI and HIV prevention, only 7% of the men interviewed had heard about the association between MC and the reduction of HIV/AIDS whilst 80% knew about other benefits of MC such as reduction of STIs and penile hygiene (Halperin, Fritz, McFarland & Woelk, 2005). Another study done in Swaziland yielded similar findings; only 18 % of participants believed that MC reduces the risk of HIV infection whilst 81% knew believed in the reduced risk of STIs after MC

These findings may suggest that though in many settings MC campaigns are trying to promote all the health related benefits of MC to their communities, greater emphasis still needs to be placed on HIV prevention so that males will enrol with the right perspective.

Findings from this study also indicate that some males who enrol for this program still hold on to the old myths about MC despite the ongoing educational campaigns. Some of the myths that men still commonly associate with MC include improved sexual performance and/or

pleasure; in this study, 21 (32.8%) of 64 participants believed that MC would help them attain a stronger erection whilst 34 (50.7%) of 67 participants were convinced that their sexual pleasure would be enhanced after MC. 11 (17.2%) of 64 participants also believed that MC would improve their chances of fertility and 2 of these participants actually cited this as their primary reason for enrolling into the program. Our findings concur with the results of two other studies which were done in different parts of Namibia, which showed that significant proportions of respondents from both studies held the belief that MC would enhance their sexual pleasure and that women would be more attracted to men after MC (Ngodji, 2010; Pappas-Deluca et al., 2010).

5.2 What influenced participants to enrol for MC?

Findings from our study show that the majority of adult males who enrol for MC in Mariental are influenced by the media, mostly by means of radio and television. It can be appreciated that since most of the study population stay on farms, where access to newspapers, magazines and internet is limited, print media has very limited role with regard to conveying and influencing adult males to enrol for MC.

Of particular interest from our findings is that health facilities and health care workers in Mariental seem to play very little role in influencing adult males to enrol for MC. This study has shown that only 6% of participants first knew about the campaign through the health facilities. However, this finding can be partially explained when we consider that most if not all adult males who enrol for MC are fairly healthy individuals and hence their chances of visiting health facilities or coming across health care workers are very low. On the other hand women tend to make use of health facilities more frequently than men, mainly for the purposes of family planning, antenatal and post natal clinics and gynaecology clinics. For this reason one strategy which health facilities in Mariental could employ in order to reach out to more adult males will be to engage them through their female partners. Hence MC advocacy for males also needs to be promoted in clinics that primarily attend to female clients, such as the gynaecology clinics.

Our findings also show that community organisations in Mariental such as the Church, schools, village councils, prisons etc. seem to have played little or no role in influencing adult males to enrol for MC. None of the participants in our study group knew about the MC program through any such organisations. As part of the recommendations from this study, we believe that engaging community organisations in our MC campaigns will help us to gain significant mileage as far as spreading the word about MC is concerned.

5.3 Adult males' perception on MC and HIV and their perceived lifestyle changes after MC

Findings from this study show that only 30 (43.5%) out of 69 participants in our study sample correctly perceived the relationship between MC and HIV prevention. Contrary to this, more than 60% of participants from the quantitative study done in Onandjokwe (Namibia) acknowledged the association between MC and reduced risk of acquiring HIV and STIs (Ngodji, 2010). However, with regard to the current findings from our study, 43.5% is an alarmingly low percentage figure, considering that the MC campaign is primarily being done for HIV prevention.

Among the rest of the 69 participants in our study, 11.6% (8 participants) did not believe that MC would offer them any protection from HIV infection and their primary reasons for enrolling for the program were mostly to do with hygiene, enhancement of sexual performance or pleasure, and to a lesser extent improving their chances of fertility; further correlational analysis revealed that 7 of these 8 participants were not keen to pursue any changes in their sexual lifestyle after MC and that 4 of these participants also had a poor basic understanding about HIV. On the other hand, 15 (21.7%) of the 69 participants perceived that after MC they would be fully protected from HIV infection; though correlational analysis reveals that these 15 participants had a fairly good understanding about HIV, four of them indicated that they were going to take less precautions against HIV after MC and out of these

four participants, two indicated that they were going to engage in sexual intercourse one week after the procedure.

Reports from the two studies done in different parts of Namibia also revealed that there were few respondents from both studies who held the perception that MC provides complete protection from HIV infection (Ngodji, 2010; Pappas-Deluca et al., 2010), whilst a small proportion of key informants in one of the studies saw no link between male circumcision and protection against HIV transmission (Pappas-Deluca et al., 2010).

Overall the findings from this study show that adult males' perception on the relationship between MC and HIV prevention is still poor amongst our study population, as only 43.5% participants in our study sample correctly perceived the relationship between MC and HIV prevention. Our findings also show that participants who hold wrong perceptions about MC and HIV prevention are more likely to engage in risk compensatory behaviour. This concurs with the results from a study done in Kisumu, Kenya (section 2.3) which suggest that MC may actually lead to increased risky sexual behaviour among individuals who hold wrong perceptions about its protective effect (Mattson et al, 2011).

5.4 Summary of analysis

The study has established that most adult males in Mariental get to know about MC through the media, primarily by means of radio and televised coverage of the campaigns. However of great concern is that a significant proportion of adult males who enrol for the MC program in Mariental seem not to have a strong appreciation about the significance of this campaign as an HIV prevention strategy; in fact most adult males who enrol for MC in Mariental do so for purposes of health and hygiene; HIV prevention is not considered by many of them as a primary reason for getting circumcised.

The study has also shown that only about 43.5% of the adult males who enrol for MC in Mariental correctly perceive the relationship between MC and HIV prevention. The study has

identified that despite MC educational campaigns, few adult males still believe that they are fully protected from HIV after MC whilst some believe that MC offers little or no protection from HIV infection. Further than this, findings from the study show that men with wrong perceptions about MC and HIV prevention are more likely to engage in risk compensatory behaviour after MC.

5.5 Recommendations from the study

In view of the above, this study recommends that firstly the MC campaigns which are broadcast through radio and television, through which most of our MC clients are informed about MC, need to be reviewed. The aim and purpose of the MC program needs to be clearly communicated to our community through these media platforms, and careful consideration must be given to ensure that the message is simple enough to be understood by the lay person, at the same time conveying all the relevant information about MC. All the different translations of this campaign need to be reviewed to ensure that the message is not miscommunicated or misinterpreted at any level of dissemination.

At health facility level, the study further recommends the establishment of comprehensive preparatory MC counselling sessions, which emphasize on the significance of MC in HIV prevention, and help to remind and focus our MC clients on the primary reasons for which they should be enrolling for this program.

The study further recommends the MC campaign managers in Mariental to consider ways of engaging the local community organisations such as churches and schools in educating our community about MC and HIV prevention. Managers must also consider and find ways of integrating the campaign with other social activities which are done locally such as sporting competitions, church functions, beauty pageants etc. so as to appeal to wider audience with the message for MC and HIV.

Lastly, within the health sector itself, the MC campaign needs not be targeted on men only but should try to engage their female partners as well; integration with women's clinics, such

as family planning, ANC and gynaecology clinics needs to be considered so as to engage females in influencing their male partners to get circumcised, particularly the males who are not keen to visit the clinics or hospitals.

5.6 Limitations of the study

Special consideration needs to be given to the limitations of this study. The purpose the study was to establish the beliefs and expectations of adult males who come to enrol for MC at Mariental hospital.

Firstly, this study was a cross sectional survey which employed quantitative methodologies to quantify the knowledge, beliefs and expectations of adult males who came to enrol for male circumcision. A longitudinal study approach, though not feasible, would have been more ideal, because this would have allowed us to follow up participants for a period to establish whether their knowledge, beliefs and perceived lifestyle changes would translate into actual behaviour.

Secondly, the study only focused on the males who had volunteered to come for medical MC at the hospital. The findings thereof did not give us any insight with regard to the beliefs and expectations of adult males who opted to go to traditional circumcisers, nor the beliefs and expectations of men in the community who chose not to come for circumcision. We also didn't get any insight with regard to the beliefs of men who were circumcised in the past, before this program was launched.

Thirdly, because the study is focused only on the adult males, a very significant segment of the population was excluded, our youths and adolescents. Most HIV prevention interventions are currently targeting our youths and adolescents as they are the most sexually active segment of the population. Valuable insight would have been obtained if youths and adolescents had been included in this study.

Fourthly, because women were not involved in this study, our findings give us little or no insight with regard to what women believe about MC and the role they play in influencing their male partners.

Lastly, the findings from this study cannot be generalized to the rest of Namibia due to the diverse cultural backgrounds and other environmental factors which play significant roles in influencing people's attitudes and beliefs in this country.

5.7 Conclusion

The launch of the male circumcision for HIV prevention in Mariental is a most crucial and significant development in curbing the spread of HIV in this part of Namibia. The success of the program as an HIV prevention strategy in Mariental ultimately depends on us establishing clear communication with our population about the primary aims of this program, so as to cultivate the correct mentality and attitudes towards MC in our community. This will enable our MC clients to enrol for the program with the right perspective, thus enabling them to focus on pursuing desired lifestyle changes after MC.

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Appendix 1- Mitigation Strategy

Mariental State Hospital
Private Bag 2014, Mariental
Namibia
24 June 2013

Research Ethics Committee: Human Research
Stellenbosch University, South Africa

RE: Mitigation Strategy

Apart from the additional time that research participants will spend at the hospital, they may find some questions on the questionnaire uncomfortable to answer, particularly those pertaining to their sexual life style. My strategy for mitigation is primarily going to involve counselling, and the counselling sessions will take place before participants give consent to take part in the study and immediately after they have completed the questionnaire. I will give the counselling with the assistance of the hospital based community counsellor.

The first counselling session will be designed to inform participants about the study and help them to understand the consent form and its implications. This session will also prepare participants for all the potential discomforts which they may experience when answering some of the questions on the questionnaire, particularly those pertaining to their sexual relationships and life style. Participants will be informed that they are at liberty to skip any questions which they do not feel comfortable to answer and still remain in the study; they are also at liberty to withdraw from the study at any stage without penalty.

Participants will also receive a follow up counseling session shortly after completing the questionnaire; this session will be designed to evaluate the psychological impact of the study on the participants so that they can be counseled accordingly. Participants may be referred for further counseling with the psychologist if this is needed.

Sincerely,

A handwritten signature in black ink, appearing to read 'Gwinyai Kadenge', written in a cursive style. The signature is positioned above a horizontal line.

Gwinyai Kadenge

Appendix 2- Consent Form



UNIVERSITEIT • STELLENBOSCH • UNIVERSITY
jou kennisvenoot • your knowledge partner

STELLENBOSCH UNIVERSITY CONSENT TO PARTICIPATE IN RESEARCH

A STUDY TO ESTABLISH THE EXPECTATIONS OF ADULT MALES WHO ENROLL FOR MALE CIRCUMCISION (Mariental State Hospital, Hardap Region, Namibia)

You are asked to participate in a research study conducted by Dr. G Kadenge, an MPhil Student in HIV/AIDS Management from the AIDS Centre, Faculty of Economic and Management Science and the Principal Investigator, Dr. Thozamile Qubuda at Stellenbosch University.

1. PURPOSE OF THE STUDY

An understanding of adult males' beliefs and perceptions with regard to Male Circumcision (MC) would enhance better comprehension about the message which they are receiving from the current on-going Male Circumcision campaigns. Since the launch of the Male Circumcision as an HIV prevention strategy in Namibia, a key concern has been raised that promoting MC may lead circumcised men to develop a false sense of complete protection against HIV; they may engage in risk compensation by halting or decreasing previously protective behaviours, hence increasing the risk of HIV infection. The intended benefits of Male Circumcision may become negated. The purpose of this study is to identify the common expectations of adult males who come to enrol for Male Circumcision, so as to identify the

gaps in our current campaigns and to suggest ways of improving the message from these campaigns.

2. PROCEDURES

If you volunteer to participate in this study, we will ask you to complete a questionnaire, and this will take approximately 15 – 30 minutes of your time.

3. POTENTIAL RISKS AND DISCOMFORTS

There are no risks associated with the research questionnaire apart from certain questions that might be uncomfortable to answer.

4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

During your participation you will be afforded an additional opportunity to ask or seek more clarity on any areas that you may not have understood with regard to Male Circumcision and HIV infection; you may be referred additional counseling sessions if this is needed. Your participation will benefit others by enabling program coordinators to learn more about the common misconceptions that adult males have about Male Circumcision so as to find ways of improving the message from the Male Circumcision campaigns.

5. PAYMENT FOR PARTICIPATION

There will be no reimbursement for participation although the information you provide will benefit others by enabling program coordinators to improve on the message from the Male Circumcision campaign.

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 assigning codes or numbers to the

questionnaires. Data will be stored in the researcher's office at work. The office is secure with controlled access. The filing cabinets are steel with a reinforced steel bar and lock. The key to the office is secure and only one person has access to the key. The investigators are the only people that will have access to the unprocessed data.

The findings of the research study will be presented in a report without identifying the participants by name.

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 Dr. Gwinyai Kadenge on (063) 245250 or 081 306 172 or Dr. Thozamile Qubuda on (+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 Dr Gwinyai Kadenge in Afrikaans/English/Oshiwambo/Nama 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

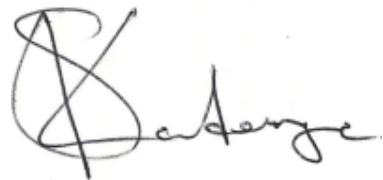
Name of Legal Representative (if applicable)

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/Nama]. No translator was used/this
conversation was translated into _____ by _____].



Signature of Investigator

Date

Appendix 3- Questionnaire

Age: _____ **Highest Educational Qualification:** _____

Marital/Partner Status: (Please tick one option ✓)

Married....._____

Single, never married_____

Living together....._____

Widower....._____

Divorced....._____

Sexually Active? Yes____ **No**____ **Please tick (✓)**

Occupation:_____ **Home Language:**_____

Please state your religion or faith:_____

Please answer the following 18 questions as completely as possible. We will highly appreciate and value your most honest responses to all the questions in our attempt to improve our Male Circumcision Program.

Please write Not Applicable or N/A on any question that does not apply to you.

Question 1: What is your main reason for enrolling for Male Circumcision?

Question 2: Are there any other reasons why you have decided to come for Male Circumcision? Yes____ **No**____ **(Please tick the appropriate ✓)**

If yes, please list your other reasons for enrolling for Male Circumcision

Question 3: Where did you hear about this Male Circumcision Program?

Question 4: In your own understanding, what is the main aim of the Male Circumcision Program?

Question 5: Is Male Circumcision traditionally practised in your culture?

Yes_____ No_____ (please tick ✓)

If yes, for what reason/s is Male Circumcision practised in your culture?

Question 6: In your own understanding, what is HIV?

Question 7: Can you list the ways through which HIV is spread from person to person

Question 8: Can you list ways in which you can protect yourself from HIV?

Question 9: Which of the above ways of protection (if any) have you used?

Question 10: How often have you used the above methods? (Please tick only one answer)

- a) I have always taken precautions using the methods which I listed above ___
- b) I have sometimes taken precautions using the methods which I listed above___
- c) I have never taken precautions.....___

Question 11: Have you ever been in any of the following risky sexual behaviours;

(Please tick either Yes or No for each statement)

- a) Having sex without a condom Yes ___ No___
- b) Having more than one sexual partner at the same time Yes___ No___
- c) Having sex with a commercial sex worker(prostitute) Yes___ No___
- d) Having sex after taking alcohol Yes___ No___
- e) Any other behaviour you consider risky Yes___ No___

If the answer in (e) above is yes please explain briefly_____

Question 12: Do you plan to change your sexual life style after Male Circumcision?

Yes _____ No _____ (Please tick the appropriate ✓)

If you ticked yes above, can you briefly list the changes you a want to make

Question 13: How often will you follow the changes you have listed above?

- a) Always....._____
- b) Sometimes....._____
- c) Never....._____

Question 14: Which of the statements below best describes your lifestyle after MC.

(Please tick one option ✓)

- a) I will take more precautions to protect myself from HIV _____
- b) I will take less precautions to protect myself from HIV _____
- c) I will not change my sexual behaviour after Male Circumcision _____

Question 15: In your understanding how well protected are you from acquiring HIV sexually after Male Circumcision? (Please tick one option ✓)

- a) I am fully protected from HIV after Male Circumcision (100%)_____
- b) My chances of getting infected with HIV sexually are reduced by 60%_____
- c) My chances of getting infected with HIV sexually are reduced by 40%_____
- d) Male circumcision does not offer any protection against HIV infection_____

Question 16: How does male circumcision affect sexual pleasure?

(Please tick one option ✓)

- a) Circumcised men enjoy sex more than uncircumcised men _____
- b) Uncircumcised men enjoy sex more than circumcised men _____
- c) Male circumcision does not affect sexual pleasure _____

Question 17: How does male circumcision affect women's choices for men?

(Please tick one option ✓)

- a) Women prefer men who are circumcised _____
- b) Women prefer men who are not circumcised _____
- c) Male circumcision does not affect women's choices for men _____

Question 18: Please tick (✓) Yes or No or I don't know for each of the following Statements;

- | | <u>Yes</u> | <u>No</u> | <u>I don't know</u> |
|--------------------------------------------------------------|------------|-----------|---------------------|
| a) Male circumcision improves the hygiene of the penis | _____ | _____ | _____ |
| b) Male circumcision improves the power of erection | _____ | _____ | _____ |
| c) Male circumcision helps to prevent penile cancer | _____ | _____ | _____ |
| d) Male circumcision helps to prevent STIs | _____ | _____ | _____ |
| e) Male circumcision increases the chances of having a child | _____ | _____ | _____ |

Thank you for your participation!

Appendix 4- Approval from Principal Medical Officer, Mariental Hospital

Tel: +264 63 245258

Mariental State Hospital

Private Bag 2014

Mariental, Namibia

20 June 2013

The REC Coordinator

Research Ethics Committee: Human Research

Stellenbosch University

South Africa

Dear Sir/Madam

RE: A study to establish the expectations of adult males who enrol for Male Circumcision at Mariental State Hospital, Hardap Region, Namibia

This is to inform you that Dr Gwinyai Kadenge's research proposal was evaluated by our health ministry's research committee and was found to have merit. The project has received approval from the Permanent Secretary of the Ministry of Health and Social Services in Namibia.

We do not have any objections with the Permanent Secretary's approval of this project and therefore we have granted Dr Kadenge the permission to conduct his research study at Mariental State Hospital.

Sincerely,


Dr T.S.R. Lyimo
Principal Medical Officer
Mariental State Hospital



Appendix 5- Approval from Permanent Secretary, Ministry of Health, Namibia

9-0/0001



REPUBLIC OF NAMIBIA

Ministry of Health and Social Services

Private Bag 13198 Windhoek Namibia	Ministerial Building Harvey Street Windhoek	Tel: (061) 2032626 Fax: (061) 222558 E-mail: tkakili@yahoo.com
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Enquiries: Ms. T. Kakili Ref: 17/3/3 Date: 04 September 2012

OFFICE OF THE PERMANENT SECRETARY

Dr Gwinyai Kadenge
P. O. Box 597
Mariental
Namibia

Dear Dr Kadenge

Re: Risk compensation after Male Circumcision

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/AIDS Management;
 - 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

"Health for All"

Appendix 6- Approval from Research Ethics Committee, Human Research



UNIVERSITEIT-STELLENBOSCH-UNIVERSITY
Jon kwenziwoboko: your knowledge matters

Approval Notice New Application

27-Jun-2013
KADENGE, Gwinyai

Proposal #: HS830/2012

Title: A study to establish the expectations of adult males who enroll for Male Circumcision at mariental State Hospital (Mariental District, Hardap Region, Namibia).

Dear Dr Gwinyai KADENGE,

Your New Application received on 16-Jul-2012, was reviewed by members of the Research Ethics Committee: Human Research (Humanities) via Expedited review procedures on 27-Jun-2013 and was approved.
Please note the following information about your approved research proposal:

Proposal Approval Period: 27-Jun-2013 -26-Jun-2014

Please take note of the general Investigator Responsibilities attached to this letter. You may commence with your research after complying fully with these guidelines.

Please remember to use your proposal number (HS830/2012) on any documents or correspondence with the REC concerning your research proposal.

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.

Also 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).

This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki and the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health). Annually a number of projects may be selected randomly for an external audit.

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

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 0218839027.

Included Documents:

DESC App
Revised questionnaires
Letter of Permission
Permission letter
Revised consent forms
Admin Review
REC App
Research Proposal
letter of response
Questionnaire
Consent to participate

Sincerely,

Susara Oberholzer
REC Coordinator
Research Ethics Committee: Human Research (Humanities)