



**ASSESSMENT OF KNOWLEDGE, ATTITUDES AND
PRACTICES OF MEN TOWARDS VOLUNTARY
MALE MEDICAL CIRCUMCISION: STUDY OF MEN
BETWEEN 15 TO 49 YEARS AT RUNDU STATE
HOSPITAL**

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Abstract

This paper presented evidence from 50 self administered-questionnaires and interviews with a sample of Rundu men who participated in a mixed descriptive research study. The purpose of this study was to describe the knowledge, attitude and practice of men who came for voluntary male medical circumcision: A case of men aged 15 to 49 years in Rundu. The study also explored the factors that hindered the men not to go for VMMC. A survey was carried out with a sample size of 50 men who are between the ages of 15 to 49 years, who visited Rundu Hospital and were uncircumcised. Despite genuine interest in circumcision, stumbling blocks in the decision-making process deterred men from undergoing the surgery. The following were revealed during the study The high cost of travelling long distance to get the

service for VMMC, Men were often hesitant to give high priority to circumcision because of fear of the surgery and also the long periods of wound recovering, had limited access to accurate information on medical circumcision, which they could have used to allay their fears, Some of the barriers were identified in their decision-making process especially their beliefs of MMC being performed in winter have deep roots in their behaviour. Moreover, unavailability of health care facilities in the marginalized areas of Kavango East Region is a barrier to service provision and also inadequate service provision meant that some men who attempted to get circumcised were turned away by the clinic. The correlation matrix was used to shows the direction and strength of the correlation between knowledge, attitude and practice. The correlation between knowledge and attitude showed a strong positive correlation. Therefore the knowledge men have on medical circumcision as HIV prevention strategy influences the attitude men have on male circumcision. The correlation between attitude and practice showed a positive correlation. The correlation coefficient being 0.783 and the p-value at 0.000 which is less than the benchmarked 0.05. also, the correlation between knowledge and practice showed a positive correlation of 0.783 and the p-value lies at 0.000, that is, it has correlation significance at 5% level of significance. Thus implying that at 5% level of significance, return on attitude is linearly related to practise. Finally, the study suggested some recommendations that can address some of the challenges hindering men to get MMC services. These are: dissemination of accurate and factual information, highlighting MC health benefits in STI and HIV prevention particularly in communities with lower level of education.

Keywords: Knowledge, Attitudes, Practices

1. Introduction

Circumcision, the partial or total removal of the foreskin, is one of the oldest and most common surgical procedures worldwide, dating back to biblical times (WHO, 2009). About 30% of all men worldwide are circumcised (WHO & UNAIDS, 2007). Reasons for circumcision vary from one nation or tribe to another depending on the meaning and significance attached to the procedure. Globally, majority of people are circumcised for

religious reasons, where the act is perceived as a requirement for a perfect relationship with God. Recently, scientific evidence has shown that medical male circumcision, defined as the complete surgical removal of the foreskin, has a number of health benefits including reduced risk in acquisition of urinary tract infections, syphilis, chancroid, and the human papilloma virus. It has been proven that the area under the foreskin, being warm and moist, is quite conducive for flourishing of pathogenic and/or floral bacteria especially when coupled with poor genital hygiene. These bacteria may end up causing diseases on the genitalia or ascent to infect the bladder and kidneys (Wiswell, 2000; American Academy of Pediatrics, 2012).

Histological studies have also shown that the inner lining of the foreskin is more thinly keratinised than the penile shaft (McCoombe & Short, 2006). This makes it more susceptible to lesions secondary to minor abrasions or ulcerative genital disorders, thereby facilitating infection by agents like the Human Immunodeficiency Virus (HIV) (American Academy of Pediatrics, 2012). Furthermore, it has been established that cervical cancer is 2 to 5.8 times more frequent among women partners of uncircumcised males compared to partners of circumcised males (NAC, 2016). Approximately 30% of the world's male population aged 15 years and above are circumcised (WHO & UNAIDS, 2007). Of these approximately two thirds (69%) are Muslims (living in Asia, the Middle East and North Africa), 8% Jewish and 13% are non-Muslims/ non-Jewish men living in the United States (WHO & UNAIDS, 2007). Male Circumcision (MC) is common in many African countries. For instance MC is nearly universal in North Africa and much of West Africa (UNAIDS, 2012). Namibia adopted the VMMC Voluntary Medical Male Circumcision strategy in 2009 but the strategic implementation plan was commenced in 2013 to 2017. The regional target was pegged at 28558 from 2009 to 2017. From 2013 the target was 6923 to 2016, only 1942 thus (28%) was circumcised hence catch up of 4981 (72%) needs to be done. Regionally only 31% of the target was reached 2009.

The recent Demographic Health Survey in Namibia indicates that 21% of adult males are circumcised (aged 15-49) with vast difference in the prevalence between regions (Ministry of Health and Social Services, 2008). In the central regions of Omaheke, Otjozondjupa and Kunene where the Herero and Himba tribes reside, VMMC prevalence ranges from 41% to 57 %, while in the Northern regions of Oshana, Omusati, Oshikoto and Ohangwena where the Oshiwambo tribes reside, VMMC prevalence is lower than 14% (Ministry of Health and Social Services, 2008). This variation in VMMC prevalence in most African countries and as

noted in Namibia is partly due to some groups who are traditionally non-circumcising, and also due to different ethnicities living in various parts of Africa. (WHO & UNAIDS, 2007). In the light of the above background, this study seeks to assess the knowledge gap, attitudes and practices of men towards VMMC in the Kavango Region of Namibia, particularly in Rundu which is the capital of the Kavango-East Region.

2. Statement of the Problem

In contrast MC is less common in Southern Africa where self-reported prevalence of MC is approximately 15% in many Southern African countries, particularly Namibia (WHO & UNAIDS, 2007). Currently little is known on the attitudes and perceptions toward male circumcision among youths and adults. Controversy surrounds the procedure and its benefits and risks to health (Hiltebeitel, 2009). As foresaid above in Rundu only 28% which is 1942 males out of the 6923 targeted males has undergone VMMC ever since the VMMC programme was launched 2009. In order to find out why (72%) 4981 males has not undergone MC there is need to carry out an assessment on the knowledge, attitudes and practices of men towards VMMC in the Kavango Region of Namibia, particularly in Rundu which is the capital of the Kavango-East Region.

3. Purpose of the Study

The purpose of the study is to investigate the knowledge, attitudes and practices of men aged 15 to 49 years on VMMC at Rundu State hospital in Kavango region, in Namibia.

4. Research Objectives

- (1) To ascertain the knowledge of men about male medical circumcision as HIV prevention strategy in Rundu.
- (2) To explore the attitudes of men in Rundu in regards to male circumcision.
- (3) To identify the practices regarding male medical circumcision in men aged 15 to 49 years in Rundu.

- (4) To identify barriers to MC practices.

5. Research Questions

- (1) What knowledge do men have about male medical circumcision as HIV prevention strategy in Rundu?
- (2) What are the attitudes of men in Rundu in regards to male circumcision?
- (3) What are the practices regarding male medical circumcision in men aged 15 to 49 years in Rundu?
- (4) What are the barriers to MC practices?

6. Significance of the Study

Few researches have been conducted among males in Namibia to elicit their knowledge, attitudes and perceptions on VMMC. Various studies have focused mainly on the association between MC and HIV infection (De Vincenzi & Mertens, 1994; Auvert, 2005; Gary, 2007; Westercamp & Bailey, 2007). This study aids in increasing the body of knowledge on the perceptions of men towards VMMC. This research is significant in that the resultant guidelines could be useful in providing insight into the way the VMMC programme should be carried out. In addition, the findings from the study should reinforce the importance of VMMC. Taking into account that literature on the perception of men towards VMMC in Southern Africa is limited; the study also contributes to both the medical and academic discussions, giving important insights into the knowledge, attitude and practices towards VMMC by men in Kavango region, particularly in Rundu. Furthermore the findings of this research might contribute towards the reviewing of the strategies in dissemination of information, which will instil positive attitude towards VMMC; add to theorizing body of scientific understanding and knowledge on male reproductive issues and contribute to enrich current educational programmes on VMMC and shape policies on VMMC and assessment and for society to understand and support VMMC.

The results of the survey can provide baseline information that will assist in program planning for VMMC as well as identification of implementation gaps and development of training

manuals, policies and guidelines. The study will be beneficial to the community and to medical personnel such as doctors and nurses. Moreover, the research results will stimulate new avenues for other studies to be conducted on VMMC. The definitions of terms are discussed below.

7. Literatures

7.1. History of Male Circumcision

According to Looli (2004) the word circumcision has its roots in two Latin words “circum” which means around and “coed ere” which literally means to cut. Doyle, (2005) stated that circumcision began around the 4th millennium BCE among the Sumerians and the Semites who are the fore fathers of the Hebrews. It has also long been practised by the South Sea Islanders, Australian Aborigines, Sumatrans, Incas, Aztecs, Mayans and Ancient Egyptians, Muslims and many tribes in East and Northern Africa. The earliest documentary which shows evidence for male circumcision was from ancient Egypt. According to the Bible in the book of (Genesis 17:11) it places the origin of circumcision among Jews in the age of Abraham who lived around 2000bc. As stated in the book of Genesis, God told Abraham to circumcise himself, his household and his slaves as an everlasting covenant of their flesh. Those who were not circumcised were to be cut off from their people. In essence, this marked the rite of passage into manhood although as a symbol of a covenant, a solemn connection with God. According to the Bible in the book of (Leviticus 12:3) procedure is mainly carried out at the eighth day of a boy’s life and when non-Jewish male adults convert to Judaism (Doyle, 2005). Egyptians adopted the circumcision practice around 1200BCE from the people of the South, what is known today as Sudan and Ethiopia. The Southerners were of Sumerian and Semite origin and were in regular contact with Egyptians during trading (Doyle, 2005). Within the Aborigines and Polynesians circumcision was an initiation rite, a test of bravery and suitability to adopt the responsibilities of manhood (Elkin, 1938; Meggitt, 1962; Ponder, 1983; Brendt, 1987). Within Africa, male circumcision is widely practiced and almost universal in the North and West Africa. The global spread of Islam from the 7th century AD necessitated the adoption of male circumcision in non-circumcising communities. In East and Southern Africa circumcision is conducted mainly as a traditional rite often linked to toughening,

training and initiation of male adolescents (Doyle, 2005).

In East Africa, the original inhabitants of Sudan, Somalia and Ethiopia were of the Sumerian and Semitic origin that came from Arabia (Parfitt, 2002). People from north-east Africa migrated down South and populated the coastal belt meeting with the Arabs who settled in Zambezi on the Mozambique Coast. This migration led to what is known as the Bantu today, who are composed of many tribes practising ritual circumcision (Doyle, 2005). The Bantus broke into many tribes each with well-defined territories. In South Africa these constitute the Zulus and amaXhosa. Others moved into Zimbabwe and Namibia. The global prevalence of male circumcision will be discussed in the next section.

7.2. Knowledge Surrounding Male Circumcision

Wilson and De Beyer, (2006) states that one's condition is given through learning or reading things around the environment. Knowledge can provide basis for decision making regarding behaviour change (Filho, Úbelis, & Bērziņa 2015). In previous studies conducted for example in Zambia, although many respondents heard of the relationship between HIV and AIDS, male circumcision, and could cite the 60% protective rate, most did not believe that HIV was related to circumcision. Since HIV is transmitted through blood and semen (University of Zambia 2012 survey). Any HIV prevention strategy requires a diverse management of evidence based intervention and male circumcision is one such intervention that was thought to be effective, preliminary results of 15 to 49 years old men in 2006/2007.

A review of the 12 studies of acceptability of MC on 9 sub-Saharan countries showed that medical circumcision acceptability was 65% among men, nearly 69% of women favoured MC for their male partner. 81% of both men and women found circumcision of their male children (Westercamp and Bailey 2007) acceptable for their male children. This shows that knowledge and experience of parents on male circumcision influenced acceptability on their children. On the contrary some respondents expressed concern that they would feel they were adopting the culture of another tribe if they decide to circumcise (Pappas, 2008).

According to Halperin, (2005) in a study carried out in Zimbabwe, few respondents were aware of the benefits of MC. Sixty-nine percent of the respondents mentioned that MC reduces STIs (Halperin, 2005). However, only 39% of the men mentioned the effect of MC on HIV and only 12% indicated that MC promotes hygiene and sexual cleanliness (Halperin, 2005). On the contrary, the results were not the same as a study conducted in Mazowe,

Zimbabwe, a mining and farming community (Chikutsa, 2011). Seventy-three individuals participated in the study and 54% were men. The results revealed that 90% of the respondents had heard of MC for HIV prevention. Access to radio was significantly associated with knowledge about MC in HIV prevention. Respondents expressed high knowledge on awareness of MC not providing full protective against HIV and that circumcised men still have to use condoms (Chikutsa, 2011).

In Tanzania, a qualitative study utilizing in depth interviews in a cohort of police officers 24 men and 10 women revealed that the respondents were knowledgeable about MC as a prevention method for both STIs and HIV infection (Tarimo, Francis, Kakoko, Munseri, Bakari & Sandstorm 2012). The authors revealed that respondents were knowledgeable about the effect of circumcision on penile hygiene and its contribution to STI prevention with emphasis being placed on HIV prevention. The respondents believed that MC enhanced sexual pleasure.

Another study in Tanzania among policemen in Da res Salaam provides important evidence about the perceived benefits of circumcision: the study found that knowledge, beliefs, perceptions and attitudes towards male circumcision influence the acceptability of male circumcision among adults (Tarimo *et al*, 2012). Further south in Botswana, Kebaabetswe, Lockman, Mogwe, Mandevu, Thior, Essex and Shapiro (2003) 61% men said they would “probably or definitely” circumcise if the procedure was free and hospital-based. In the same study the proportion went up to 89% after exposure to information about circumcision, proving the importance of information about this very complex intervention.

Tarimo *et al.*, (2012) found that knowledge, beliefs, perceptions and attitudes towards male circumcision seem to influence the acceptability of male circumcision among adults. Interestingly, perceptions about effects of MMC on sexual performance and pleasure are common in a number of the studies highlighted above and discussed below HIV acquisition. Furthermore, circumcision leads to a decrease in STIs and a possible reduction in micro tears and trauma to the foreskin during sex (Rasool, Sameer & Saddiqi, 2011). Based on the epidemiological and experimental substantiation, MC could have a considerable impact on the HIV epidemic especially among the most highly affected countries (Westercamp & Bailey, 2007). In fact, models have estimated that routine MC in Sub-Saharan Africa could highly avert about 6 million new infections and 3 million deaths in the next two decades (Wambura

et al., 2009).

According to Scott, (2005) despite the strong evidence of a protective effect of MC against HIV, the concern with the effective application of this knowledge to preventing HIV is the acceptability of MC, especially in non-circumcising communities. 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). Furthermore, 74% of men in the same study reported that they would be willing to circumcise their sons after attending the session. The difference in acceptability levels before and after the information session indicates that knowledge about the benefits of MC is an important determinant of acceptability of the procedure in non-circumcising societies. In different African countries where circumcision is not commonly practiced, men were more willing to be circumcised if they lived in urban areas and were employed (Scott, Weiss & Viljoen, 2005) and had higher levels of education (Halperin, 2005; Scott, 2005). The reason being that, people living in urban areas and who are educated are believed to be exposed to circumcising tribes in schools and working areas, thus thought to increase their acceptance of MC (Nnko, 2001).

According to VMMC (2008) male circumcision is a vital intervention that is progressively being integrated into national HIV prevention programmes. Communication channels and activities to support the approaches should be varied and should depend to a large extent on the targeted groups. Information should be dispensed through Educational tools. These tools should aim at increasing knowledge through a process of education. In order for the MMC intervention to be successful, societal knowledge, beliefs and practices should be considered when implementing MC procedure as an additional HIV prevention strategy. Dispensation of information is of great importance as evident in a study by Plank (2010) which was conducted in Botswana. The response rate in this study was 92%. Prior to data collection women were issued with MC pamphlets outlining and describing the circumcision procedure, a list of the most salient potential risks and benefits of circumcision in general. The results revealed that 92% of the mothers agreed to circumcise their male babies on condition that it was offered in a clinical setting. It is therefore, imperative that a communication strategy should aim at improving the knowledge and understanding of VMMC within the general public thereby increasing the demand for the service.

The three most salient barriers to the acceptability of male circumcision were fear of pain, concerns for safety and the cost of the procedure. In areas where traditional circumcision is uncommon, the preference was overwhelmingly for a medical practitioner to be the provider, as this was perceived to be safer. All studies reported fear of infection, bleeding, excessive pain and possible mutilation at the hands of traditional circumcisers. Fear of pain was the main reported barrier towards male circumcision acceptability in most studies. This fear was based largely on knowledge of traditional circumcisions in which pain is often viewed as an integral part of the rite of passage to manhood (WHO and UNAIDS, 2007).

7.3. Attitudes Surrounding Male Circumcision

The media in Malawi reported high levels of stigmatizing and negative attitudes towards patients/clients seeking VMMC as one of the prevalent behaviours towards VMMC. For the effective implementation of the VMMC, there is need to embrace and recognize the role of the interlinked communication strategies of such as advocacy. Advocacy is an important component of the strategy to mobilize political commitment and policy change that would enhance positive behaviour change. The advocacy programs will also be undertaken to develop positive attitudes and behaviour in areas of VMMC among all partners, allies and local leaders thereby creating an enabling environment.

In the Eastern Cape, South Africa where MC is mostly practiced differences in attitudes on the part of medical staff at hospitals thus affect whether or not adult male circumcision services are provided in practice. Staff interviewed at some hospitals took the view that ‘we don’t do that here; they must go to a Traditional healer for that’. In some cases this attitude is apparently motivated by repugnance for the tradition and a sense that it ‘does not belong in a proper hospital’ while in other cases it appears that staff are themselves opposed to the idea of male circumcision taking place in a hospital setting because it offends tradition. Many hospitals consider circumcision cosmetic surgery and would only offer adult circumcision in cases of medical emergency, for instance, where an injury has been sustained to the penis. Ironically, most such injuries are incurred during bush circumcision. In conclusion it is prudent to say currently in Namibia little is known on the attitudes and perceptions toward male circumcision among youths and adults. Controversy surrounds the procedure and its benefits and risks to health (Hiltebeitel, 2009).

7.4. Practices Surrounding Male Circumcision

In the developed world circumcision involves the complete removal of the prepuce. Bonner (2001) revealed that circumcision practices are not universally standard. Some Thai populations incise the prepuce into segments but do not remove it (Bonner, 2001). In the Solomon Islands, circumcision is in the form of a superficial incision without the removal of the flesh (Treadaway, 2000) while in the Sub-Equatorial Africa, a small skin of the prepuce is left on the glans penis (Bonner, 2001). Despite the types of male circumcisions practised across nations, Doyle (2005) notes that the most prominent is where the foreskin is completely removed exposing the entire glands of the flaccid penis. Globally, there are different types of MC. However, the most common type is where the foreskin of the penis is completely removed, exposing the entire glans of the penis (Doyle, 2005).

In Zambia, focus group discussions were conducted with urban and rural married and single unmarried men aged 18 to 39 (Lukobo & Bailey, 2007). Thirty-four focus group discussions were conducted; 17 with men and 17 with women in four districts. The study assessed male circumcision practices, opinions, and acceptability as an intervention to improve male genital hygiene and reduce sexually transmitted infections, including HIV-1. Results revealed different perceptions on male circumcision. Traditional groups practicing male circumcision revealed that uncircumcised men experienced premature ejaculation, decreased penile hygiene and unfit for marriage.

However, men not practicing traditional male circumcision expressed limited interest in the practice although some expressed considering MC because of beliefs that women preferred circumcised men (Lukobo & Bailey, 2007). In addition, non-circumcised respondents revealed that they would adopt MC for themselves or their sons if it was proven to reduce the risk for HIV and STIs and on condition that it was offered free of charge or at a nominal cost.

The relatively low prevalence of MC in Namibia is related to a number of historical, social and political factors. The original inhabitants of this area, the Khios-San people such as the Nama and San people did not engage to a significant degree in traditional circumcisions as part of their cultural practices (Marion, 2011). However for centuries male circumcision was on integral cultural practice among the Bantu speaking people such as the Herero ethnic groups who migrated from central African regions. The Nyemba people who originated from the southern eastern of Angola believe it is part of their culture for a man to be circumcised. They take the rituals very seriously but they mostly perform them in winter as its believed

wounds heal better in winter and there is less pain in winter. The medical necessity for routine male circumcision has emerged as a controversial subject in the recent era. Kaurua (1997) stated that “the circumcision of the Herero under those circumstance and those rituals, is what makes, the Herero people, a people, if you remove those practices, the Herero men will be like an elephant without a trunk”.

The various Owambo communities gradually abandoned the practices of male circumcision however the first to discontinue the practice were the Aandonga tribe with the rest following later. In Oukwanyaama, the last king to be circumcised Ohamba Haimbili yaHaufiku died in 1860. His successor king Mweshipandeka refused to undergo circumcision hence the community followed suit (The Namibian, 2001). In Oshiwambo tradition male circumcision was viewed to be a physical and spiritual intervention, it was believed to link the young man to the spiritual world of his ancestor to secure his fertility (Nampala & Shigwedha 2006).

According to the Namibia qualitative report (2010), cultural drives in male circumcision are not common in Namibia. However there is varied history of practices including male circumcision of kings, for example in the Owambo kingdoms whereby only circumcised men could become kings, yet in the Aandonga and OvaKwanyama kingdoms, kings could not be circumcised as it was considered a taboo for a divine person to lose blood (Loeb, 1967). Male circumcision is not traditionally practiced by all the ethnic groups in Namibia. The Herero’s and the Himbas practice male circumcision and the HIV prevalence rates are lower in Opuwo which is populated by these groups (MOHSS, 2009). Traditionally the Owambo and Damara people do not practice circumcision so their lack of support in VMMC is not surprising. This leads to theoretical framework underpinning this study.

8. Theoretical Framework

The overriding goal of this study is to generate new theoretical understanding of the interface between male circumcisions and specifically, whether attitudes, perceptions and knowledge about MMC impact the procedure or impede its acceptability among uncircumcised men aged 15-49. The study will use the Interpretive Paradigm as its theoretical framework, which focuses on the interpretation of reality as seen and experienced by people and the meanings attached to this reality, used to understand and explain their lives (Sarantakos, 1997). The

study will apply the grounded theory approach, developed by Glaser and Strauss (1967) as cited by (Doyle, 2005) which argues that theory is grounded because it is related to, emerges out of, and is created through and grounded on empirical data (Sarantakos, 1997). The purpose of this approach according to Sarantakos is for the researcher to understand people, not to measure them. (Sarantakos, 1997). He further observes that this approach is not about collecting huge volumes of data but about organising the variety of thoughts and experiences the researcher gathers during analysis of data (Sarantakos, 1997).

8.1. MMC Acceptability Conceptual Framework

The conceptual framework depicted in the diagram (Figure 2.1) below shows the two main constructs that guided the study; acceptability of medical male circumcision and perceptions of the impact of MMC. The framework is meant to explore the interface between the two constructs and to what extent this interface either facilitates or impedes acceptability of VMMC. Based on previous acceptability studies, the researcher makes the assumption that because of the controversy and lack of proper knowledge on MMC, perceptions and attitudes about the effects of MMC are likely to be a significant facilitator of or barrier to its acceptability among men in non-circumcising communities. The framework will thus use the three indicators which are used to assess and predict acceptability of medical male circumcision among uncircumcised men, which are knowledge, attitudes and perceptions (Westcamp & Bailey, 2006).

Acceptability was further analysed using selected theoretical constructs, namely: perceived benefits/outcome expectancies, intention, pre-contemplation, contemplation, preparation and cues to action in relation to acceptance of male circumcision. The constructs are borrowed from four behaviour change theories: the Health Belief Model, Social Cognitive Theory, Theory of Reasoned Action, the Stages of Change Model and the Diffusion of Innovation Theory (UNAIDS, 1999; Bandura, 1992; Fishbein, Middlestadt, & Hitchcock, 1991; Rosenstock, Strecher, & Becker, 1974; Peterson, 1994). This theoretical framework was used in a research by Mlewa (2013) in his quest to generate new theoretical understanding of the interface between male circumcision and sexuality and more specifically, whether perceptions about impact of the procedure male sexuality facilitate or impede its acceptability among young uncircumcised men. However the same theoretical framework has been tailored to meet the demands of this study.

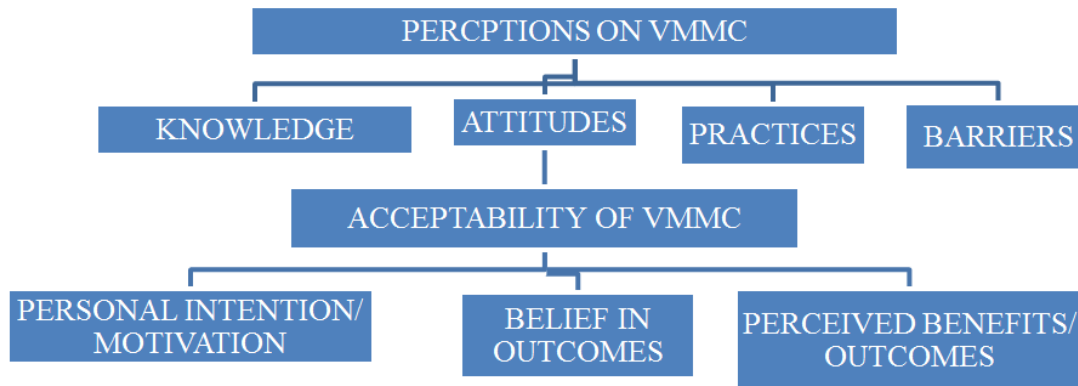


Figure 8.1.1. MMC acceptability conceptual Framework.

9. Method

9.1. Research Design

The study was descriptive mixed research design. The descriptive mixed research methods uses a set of scientific methods and procedures to collect raw data and create data structures that describe the existing characteristics of a defined target population or market structure (Hair, Wolfinbarger, Ortinau & Bush2008). Descriptive studies also make it possible to draw inferences about their target population or environmental factors (Van der Merwe, 2003). Thus, this study used the survey research approach which was described by Zikmund and Babin (2010) as a research technique whereby a sample is interviewed or the behavior of respondents is observed and described in same way. A survey is the most common method of generating primary data. This study used survey research for the following reasons as pointed out by Cooper and Schindler (2006) that surveys are relatively inexpensive (especially self-administered surveys); and are useful in describing the characteristics of a large population. This design technique of data collection has proved to be ideal for this study because it helped the investigator to assess the knowledge, attitudes and practices of men towards VMMC in Kavango Region especially in Rundu state hospital. Consequently, the use of surveys on study samples was feasible and made the results statistically significant.

Finally, a triangulation or mixed research methodology were implemented. The questionnaires (normally quantitative) were used to gather statistical data about responses, and then back up by interview (normally qualitative) used to gather descriptive data. According to Johnson, Onwuegbuzie and Turner, (2007) mixed methods research refers to a systematic integration of

quantitative and qualitative methods in a single study for purposes of obtaining a fuller picture and deeper understanding of a phenomenon.

9.2. Population

A population has been described by Burns and Burns (2008) as ‘the entire collection of all the observations of interest (this could be people, objects or events) to the researcher’. Malhotra (2007) went on to elaborate that the population of a study can also be defined as an aggregate of the elements that share a common set of characteristics which then comprises the universal group for the goal of the research problem. A parameter is set of descriptive measures of a characteristic which are true in all the elements of the population (McDaniel & Gates, 2010). With these definitions in mind, the population that will be use for this study will comprises of men between the ages of 15 to 49 attending voluntary counseling for VMMC. The researcher believed that these individuals are in a position to give the relevant information about the knowledge, attitudes and practices of men towards voluntary male medical circumcision. Hence the targeted population for this proposed study will be indefinite.

9.3. Sampling Method and Technique

Determining how the sample units are to be selected is an important decision for a study making use of mixed methods and such a decision requires the selection of a sampling method. The choice between probability and non-probability sampling methods often involves both statistical and practical considerations. Statistically, probability sampling allows the researcher to demonstrate the representativeness of a sample, an explicit statement as to how much variation is introduced, and identification of possible biases (Kumar, Aaker & Day, 2009). However, for the purposes of this study, non-probability sampling was used. Non-probability sampling is a sampling method in which the chance of selection of any member of the population being chosen is not known and elements are selected on the basis of personal judgment of the researcher (Zikmund & Babin, 2010). Therefore, based on the above reasoning, non-probability sampling was considered appropriate for this survey-based study, the men between the ages of 15 to 49 attending the VMMC counseling willed sample, using convenience sampling.

Both McDaniel and Gates (2010), Zikmund and Babin (2010) agree that convenience sampling is primarily a non-probability sample based on using people or units that are easily accessible and available. In an exploratory situation, where there is a pressing need to get an

inexpensive approximation of true value, in such situations, convenience sampling may represent an efficient and effective means of obtaining the required information (McDaniel & Gates, 2010).

Researchers generally used convenience sampling to obtain a large number of completed questionnaires quickly and economically, or when obtaining a sample through other means is impractical (Zikmund & Babin, 2010). For purposes of this study, the researcher took the most accessible population elements from which to obtain information. This happened because the target population were indefinite, making it difficult to use any other sampling method. Subsequently, the researcher worked with a sample size of 50 respondents because they are a good representative of the population.

9.4. Research Instruments

Research instruments are the tools such as interviews, questionnaires and observations used by researcher to collect data from respondents. In order to collect data for this particular research, the researcher used two research instruments namely the interview and the questionnaire.

9.4.1. Interview

The purpose of an interview was to address the need for comparable responses, since the same questions were asked of each interviewee and the need for the interview to be developed by the conversation between the interviewee and the interviewer. Interviews have an advantage of allowing the researcher to explain things that might not be clear to the interviewee. The main aim of this interview schedule was to obtain information regarding the knowledge, attitudes and practices of men towards voluntary male medical circumcision. The interview schedule was designed from the research questions as well as the literature review. Introductory messages were made by the researcher to the interviewees before carrying out the interviews to explain the purpose of the interview as well as obtaining the permission from the Hospital superintendent to access the interviewees. Open ended questions were structured by the researcher to enable the interviewees to express themselves from a wider perspective. See Appendix: A and Appendix: C.

9.4.2. Self-administered Questionnaire

A self-administered questionnaire is defined as a research instrument research instrument

personally delivered to the respondents by the researcher, but completed by the respondent with no outside involvement (Cooper & Schindler, 2006). In this particular research, the self-administered questionnaires were used because it:

- (1) Ensures anonymity and privacy of the respondents, thereby encouraging candid and honest responses;
- (2) has proved to have a higher response rate than the other data gathering techniques such as mail surveys;
- (3) Is less expensive than data gathering methods such as personal interviews where the researcher must be present with respondents at all times (Cooper and Schindler, 2006).

This questionnaire comprised of five sections namely: Section A: Demographic information, Section B: Knowledge surrounding VMMC, Section C: Attitudes surrounding VMMC, Section D: Practices surrounding VMMC and E: Barriers surrounding VMMC. These instruments were utilised because of its effectiveness in gathering large volumes of empirical data from large samples, as well as the timely collection of predetermined data (Shammout, 2007). The questionnaire was structured in a way that both the non-literate and literate were able to respond to it. See Appendix: D.

9.5. Validity

According to Dempsey and Dempsey (2004), validity is the degree to which an instrument measures what it is supposed to measure. Polit and Hungler (2006) concurs and enumerates the varied aspects of validity. Content related validity is perceived by Burns and Grove (2011) as the extent to which the method of measurement includes all the major elements relevant to the concept being measured. In this study, the questions were formulated on the basis of the revelations of the literature review to answer the study questions. The investigator consulted the supervisor and other senior personnel to review the questions and provided expert opinion.

9.6. Reliability

Reliability of an instrument is the degree of consistency or dependability in which the instrument measures the attributes (Babbie, 2006). According to Patsika and Chitura (2004), the reliability of a research instrument can be determined by conducting a pilot study or a test – retest, where the instrument is administered to sample individuals on two occasions. If the results obtained are consistent, the instrument is considered reliable. In this study, the

researcher conducted a pilot study prior to the main study and adjust the instrument accordingly.

9.7. Data Collection

Burns and Grove (2011) define data collection as the precise, systematic gathering of information relevant to specific research objectives or questions. The Investigator utilised interviews and questionnaires to collect data which were personally conducted and delivered to the respondents after explaining to them the purpose of the study and obtaining an informed consent.

9.8. Plan for Data Analysis and Presentation

Data analysis is the systematic organisation and synthesis of research data (Polit & Hungler, 2006). Data were grouped, classified and coded to facilitate processing, checking and cross referring. The investigator used Windows 7 statistical analysis mode software to analyse the data. The program generated frequency tables, graphs, pie diagrams and representative characteristics or values, such as averages and percentages. Descriptive statistics were used because of their suitability in providing an objective reflection of the findings. Data were presented on tables and figures as frequencies and percentages.

For the qualitative part the researcher used content analysis research technique for the objective, systematic and qualitative description of the manifest content of communication. This type of analysis also obtained data by observing and analyzing the content message of, for example reports and letters. It involved the systematic analysis, as well as observation to identify the specific information, content and characteristics of the message (Zikmund & Babin, 2010).

10. Result

10.1. Demographic Information

Question 1 to 7 elicited demographic information. A total of 55 questionnaires were handed out. Only 50 respondents completed and returned the questionnaire. This gave a response rate of 90.9%.

Table 10.1. Demographic characteristics of respondents who participated in the MC.

Variable	Variable Options	Frequency	Percentage%
Tribe	Kwangali	25	50%
	Gciriku	5	10%
	Mbukushu	7	14%
	Nyemba	6	12%
	Other (specify)	7	14%
	Rukwangali	28	56%
Languages	English	3	6%
	Gririku	5	10%
	Thimbukushu	6	12%
	Other (specify)	8	16%
	Single	35	70%
	Married	3	6%
Marital Status	Living together not married	12	24%
	Divorced	0	0%
	Windowed	0	0%
	No formal Education	1	2%
	Primary up to Grade 7	8	16%
Level of education	Secondary up to Grade 12	33	66%
	Tertiary level	8	16%
	Roman Catholic	22	44%
	Anglican	3	6%
Church denominations	Lutheran	11	22%
	None	2	4%
	Others	12	24%
	Unemployed	12	24%
Employment	Employed	26	52%
	Student/ learner	12	24%

From the Table 1 above showed that, most of the respondents spoke Rukwangali (56%) while minority respondents spoke thimbukushu only (12%). There were few cases of respondents who spoke other languages like vambo and damara which were classified in the table as others. The study revealed that a high percentages of Kwangali men participating in the MC.

The study also revealed a high percentage of single men (70%), minority (24%) was living together not married and a few were married (6%). No cases of divorced or widowed men identified. Results of the level of education revealed that the majority of despondences (66%) had secondary education and minority had tertiary education (16%). Only a few had no formal education (2%). With respect to religious affiliation, the majority were Christians (72%) and (24%) belonged to other religions while only a few had no religion (4%) More than half of the respondents were gainfully employed (52%) and the percentage of learners and unemployed were (24%) irrespectively.

10.2. Knowledge Assessment

Respondents' general knowledge of male circumcision and its benefits was assessed. The tables below showed the results.

Table 10.2. Ever heard of MC.

Response	Frequency	Percentage %	Cumulative Frequency
Yes	41	82	41
NO	7	14	48
Maybe	2	4	50
Total	50	100	139

The main reason why the investigator asked question of 'ever heard of MC to respondents was to establish their knowledge and interest towards MC. The results conveyed that Nearly all the respondents had heard of male circumcision (82%) while only a minority had never heard of it (14%), which might imply that many men in Rundu know about the MC but are not willing to come for free circumcision services which are offers in Rundu clinic. A few of the respondents were not sure (4%).

Table 10.3. Awareness that male circumcision can reduce risk of HIV infection.

Response	Frequency	Percentage%	Cumulative%
Yes	43	86	86
No	5	10	96
Maybe	2	4	100
Total	50		

From the table 5 above, it is observable that nearly all respondents (86%) agreed with the statement that MC can reduce risk of HIV transmission. A minority were not aware of this and only (4%) were not sure. Based on the results it is evidence that men are aware of the benefit of MC but maybe there might be some of the factors that are hindering them not to participate in the MC services.

Table 10. 4. MC can reduce risk of STI (others).

Response	Frequency	Percentage	Cumulative Frequency
Yes	43	86	43
No	3	6	46
Maybe	4	8	50
Total	50	100	139

The majority (86%) concurred with the statement while a few did not support it. Only (8%) were not sure. The results support the basis for informing the World Health Organization (WHO) conclusions that the efficacy of male circumcision in reducing female to male HIV and STIs transmission has now been proven beyond reasonable doubt. This is an important landmark in the history of HIV and STIs prevention (WHO 2007). It is important to note that men in the sample are likely to be more comparable to other men living in relatively large areas of Rundu town or Kavango at large.

Table 10.5. MC helps improve penile hygiene.

Response	Frequency	Percentage %	Cumulative %
Yes	38	76	76
No	5	10	86
Maybe	7	14	100

Total	50	100
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The majority of the respondents responded in agreement that it is easier to maintain penile hygiene when a man is circumcised and on the other hand only about 14% of respondents were not sure and 10% of the respondents did not support the statement.

Table 10.6. MC reduces risk of penile cancer.

Response	Frequency	Percentage%	Cumulative%
Yes	26	52	52
No	16	32	84
Maybe	8	16	100
Total	50	100	

About half (%52%) of the respondents are aware that MC reduces risk of penile cancer while fewer than half (32%) were not aware of this benefit. A minority of the respondents (16%) were not sure.

10.3. Sources of Information on VMMC

As shown bellowed in the Figure 9, the pie chart shows that 56% of the respondents cited radio and television as their source of information. 54% of the respondents cited that information was being relayed through relatives and friends. Fewer than half (46%) cited they get information through health care facilities the least of the respondents cited newspapers, health related articles and the internet at 21 and 20% respectively.

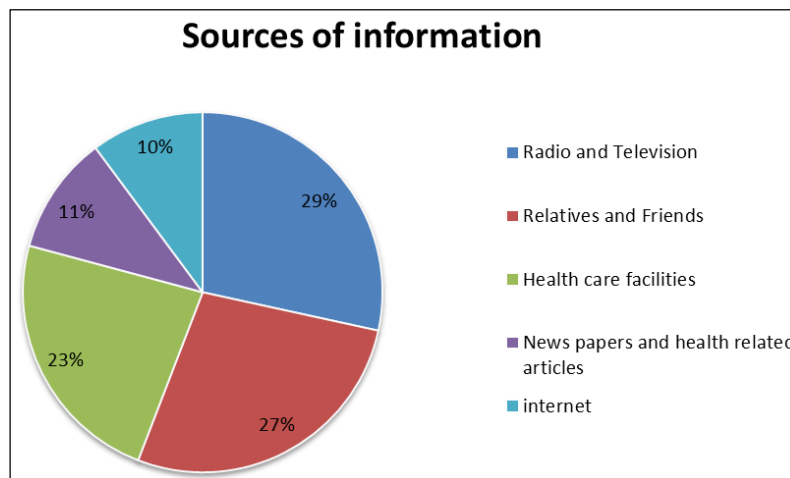


Figure 10.1. Sources of information.

Table 10.7. To what extent is knowledge surrounding VMMC readily available.

Response	Frequency	Percentage	Cumulative %
Great extent	18	36	36
Fair extent	21	42	78
Little extent	8	16	94
No extent	3	6	100
Total	50	100	

In the Figure 10 above showed that 36% of the respondents stated that information surrounding VMMC is readily available, while fewer than half (42%) cited that it was fairly available. Minority of the respondents reiterated that, it was not much just too a little extent. Only (6%) cited there is no information was available to them.

The investigator wanted to find out the knowledge of respondents in regard of the availability of information regarding on the VMMC. The results are evidence that many men in the Rundu areas have access to the information regarding on the MC. Furthermore, the investigator assesses the knowledge of respondents to find out whether the availabilities of information did encourage them to get the MC services or not. The assessment of information was analysed with respondents choosing the options presented below; strongly agree, agree, neutral, disagree and strongly disagree. The Figure 12 below shows the results.

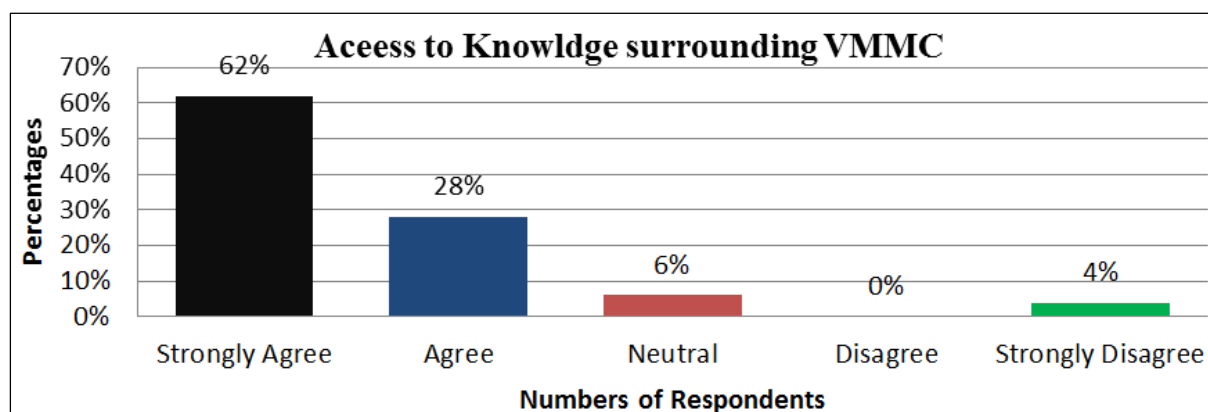


Figure 10.2. Access to knowledge surrounding the VMMC.

The majority of the respondents (62%) cited that having knowledge surrounding VMMC will encourage men to partake in circumcision practices and (28%) agreed to the statement. only a few disagreed and (6%) remained neutral. The results revealed that if many men get to know

more about VMMC majority of men the Rundu areas and Namibia at large are likely to participate in the VMMC services.

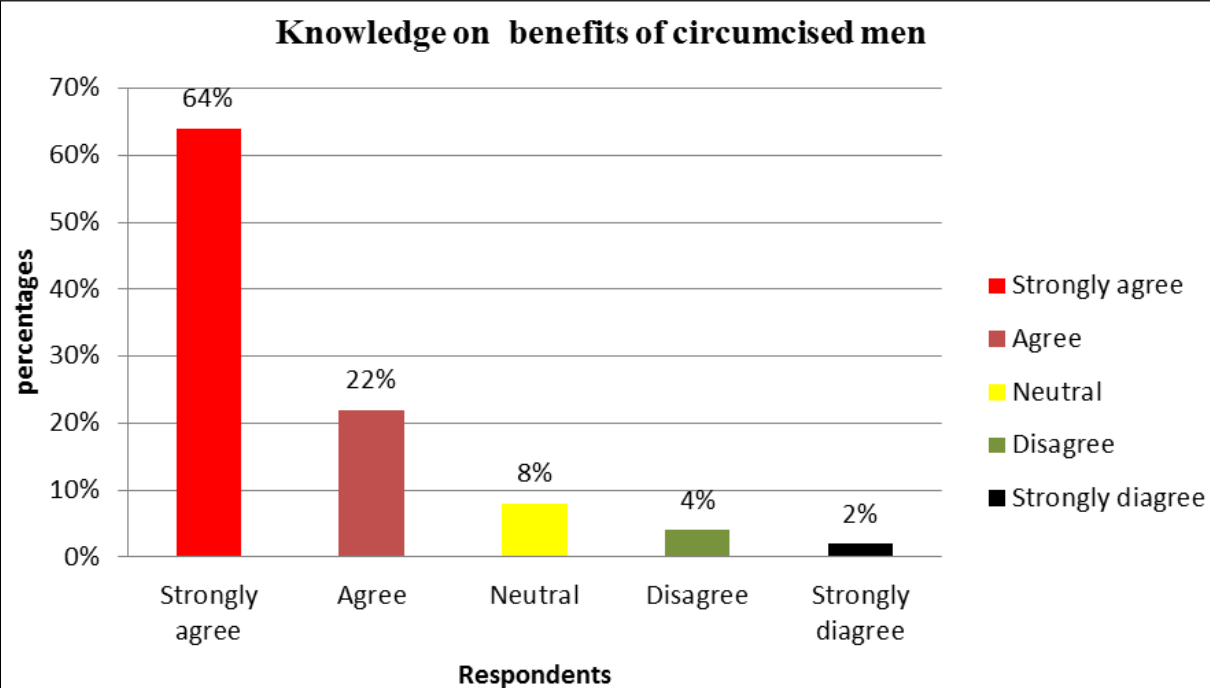


Figure 10.3. Knowledge on benefits helps men to decide and accept to be circumcised.

The result in figure 14 revealed that if men are given or taught the benefit that come with the VMMC, men in Rundu participate in the VMMC. 64 % of respondents agreed that if men know the benefit of VMMC will accept to be circumcised. Hence it is assumed that the education on the knowledge of VMMC is not adequately given the communities surrounding the Rundu town and the region (Kavango East) at large. Only 4% and 2% who disagree and strongly disagree that even if the men know the benefit will not come for VMMC and there is a small fraction of the respondents.

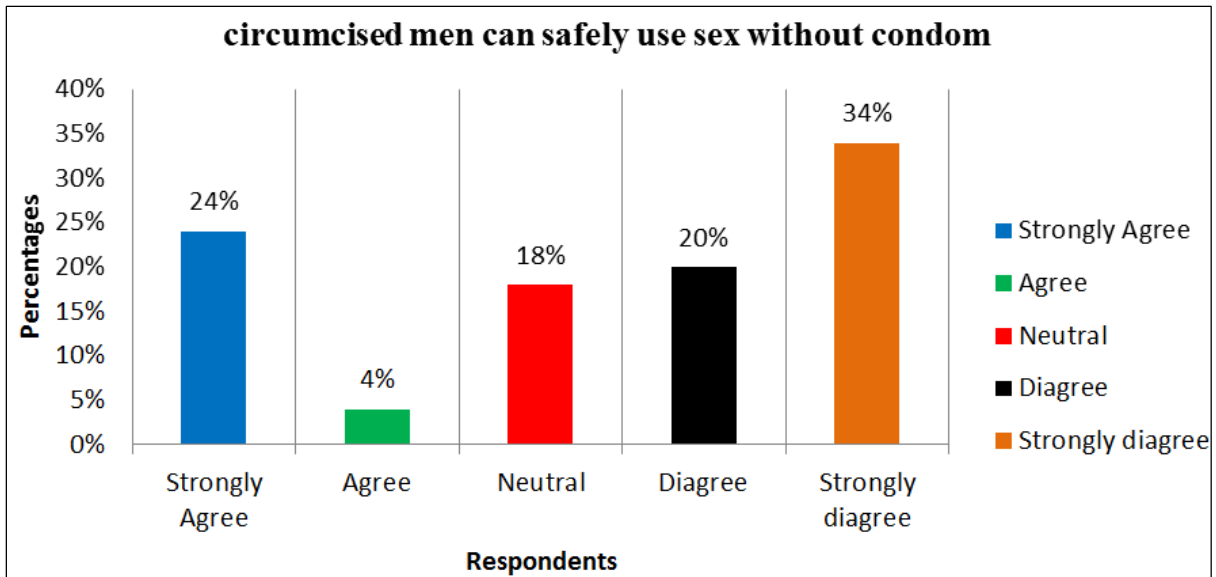


Figure 10.4. Circumcised men can safely have sex without using a condom and don't get infected with HIV infection.

In the figure above show that respondents fewer than half (34%) strongly disagree and 20% of respondents also disagree that circumcised men can safely have sex without a condom and don't get HIV. A minority believe this to be true (24%) that circumcised men can have sex without a condom and will not get HIV. Few of the respondents remain neutral (18%).

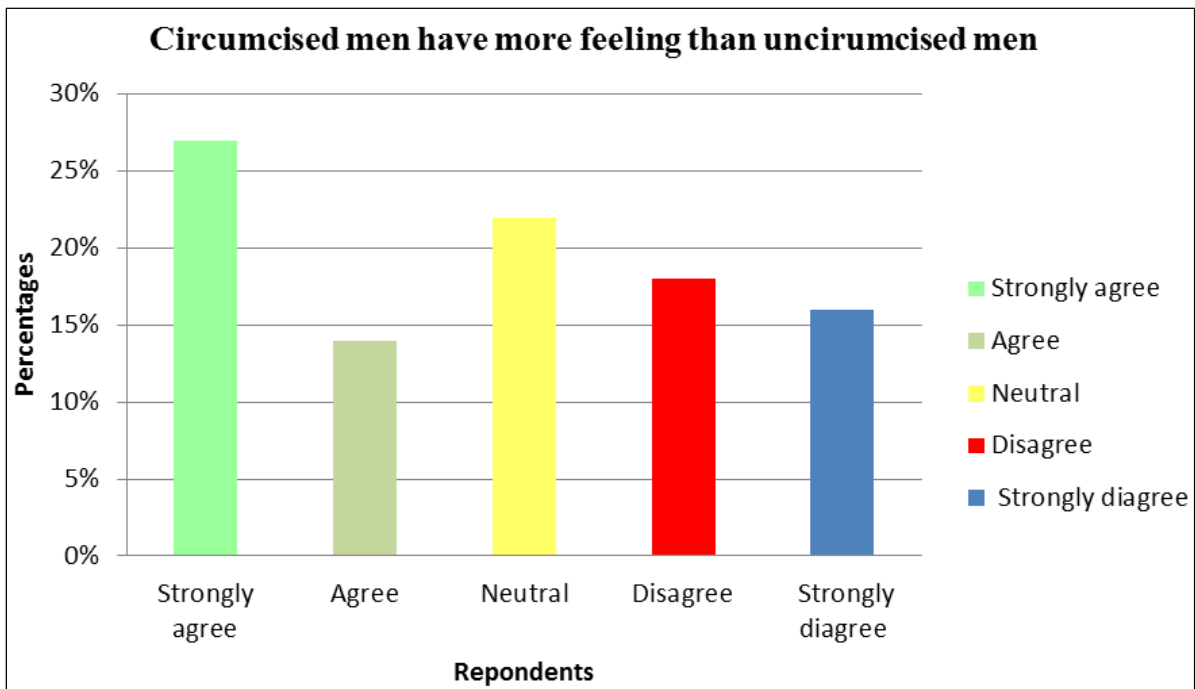


Figure 10.5. Circumcised men have more sexual feeling than uncircumcised men.

In the figure above show that fewer than half of the respondents cited that circumcised men have more sexual feeling than uncircumcised men. On the same hand, some of the circumcised men said they were superior to their uncircumcised counterparts when it came to sexual performance. The respondents further said that circumcised men can delayed ejaculation this was their reason for being agreed that they have more sexual feeling than uncircumcised men. This is in the agreement of the study done in African countries that shown that some men express their dominance over their female partners through sexual performance (Groes-Green, 2009; Bourdieu et al., 2001). 22% of the respondents chose to remain neutral while 16% and 18% beg to differ. They disagreed with the statement.

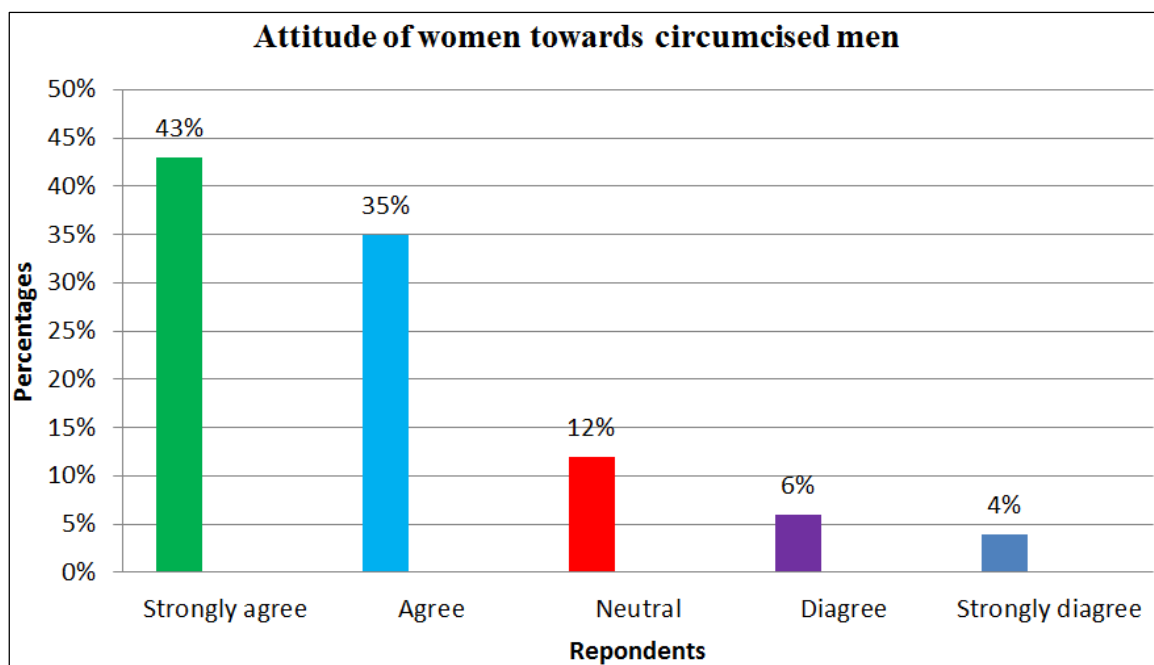


Figure 10.6. The attitude of women towards circumcised men motivates men to get circumcised.

The respondents were asked if the women have influence on them to go for VMMC services. The results above in figure 17 show that the percentages of respondents who strongly agree and agree that the attitude of women motivates men to undergo male circumcision were about (78%) all together. This shows that opinions of women have a bearing in increasing on MC uptake by men and only few respondents disagreed with the statement (10%).

10.4. Practice Surrounding VMMC

Table 10.8. Would you consider being circumcised.

Response	Frequency	Percentage	Cumulative%
Yes	47	94	94
No	1	2	96
Maybe	2	4	100
Total	50	100	

Nearly all the respondents considered being circumcised (94%) a few were uncertain (4%) and only 2% declined. Results showed that when men know the benefit of MC they are likely to get MMC services. Therefore the knowledge, attitudes and behaviours are shaped by the level of information/ education. Equally, the investigator felt that if information is correctly disseminated to all the members in the societies in Namibia, majority of men will opt for the VMMC.

Table 10.9. Believe that circumcision should be done in winter.

Response	Frequency	Percentage	Cumulative %
Yes	28	56	56
No	17	34	90
Not sure	5	10	100
Total	50	100	

Table 10.10. Why in winter.

Response	Frequency	Percentage	Cumulative
Culture	11	22	22
Tradition	16	32	54
Less pain	19	38	92
Don't know	4	8	100
Total	50	100	

Majority of the respondents still hold the belief that circumcision should be done in winter (56%) cited this and the reasons stated are mostly there is less pain in winter (38%), for traditional reasons(32%) and culturally (22%). A minority declined saying it can be done any

time and (10%) where not sure.

Table 10.11. Do you know the association between MC and HIV infection.

Response	Frequency	Percentage	Cumulative %
Yes	34	68	68
No	9	18	86
Maybe	7	14	100
Total	50	100	

The majority of the respondents cited that they have knowledge of the association between MC and HIV infection. 68% of respondents said they are fully aware the association between MC and HV. Equally, some respondents even said that MC have 60% prevention of infected with HIV, whilst 18% of respondents were not aware of the association. A minority cited they were not sure (14%) of the association.

The result it was found that majority of respondents heard and knew about MC. Most significantly, just over half of them were aware of the fact that MC can reduce the risk of HIV infection. This is consistent with the study conducted in Botswana by Mdzebel and Tegegn (2014).

Table 10.12. Recommending MC to friend.

Response	Frequency	Percentage	Cumulative%
Yes	44	88	88
No	4	8	96
Maybe	2	4	100
Total	50	100	

The results revealed that nearly 88% of respondents would recommend a friend to go for circumcision services, while 8% would not preferred to recommend their friends. Only 4% of respondents indicated they may recommend friends to go for MC.

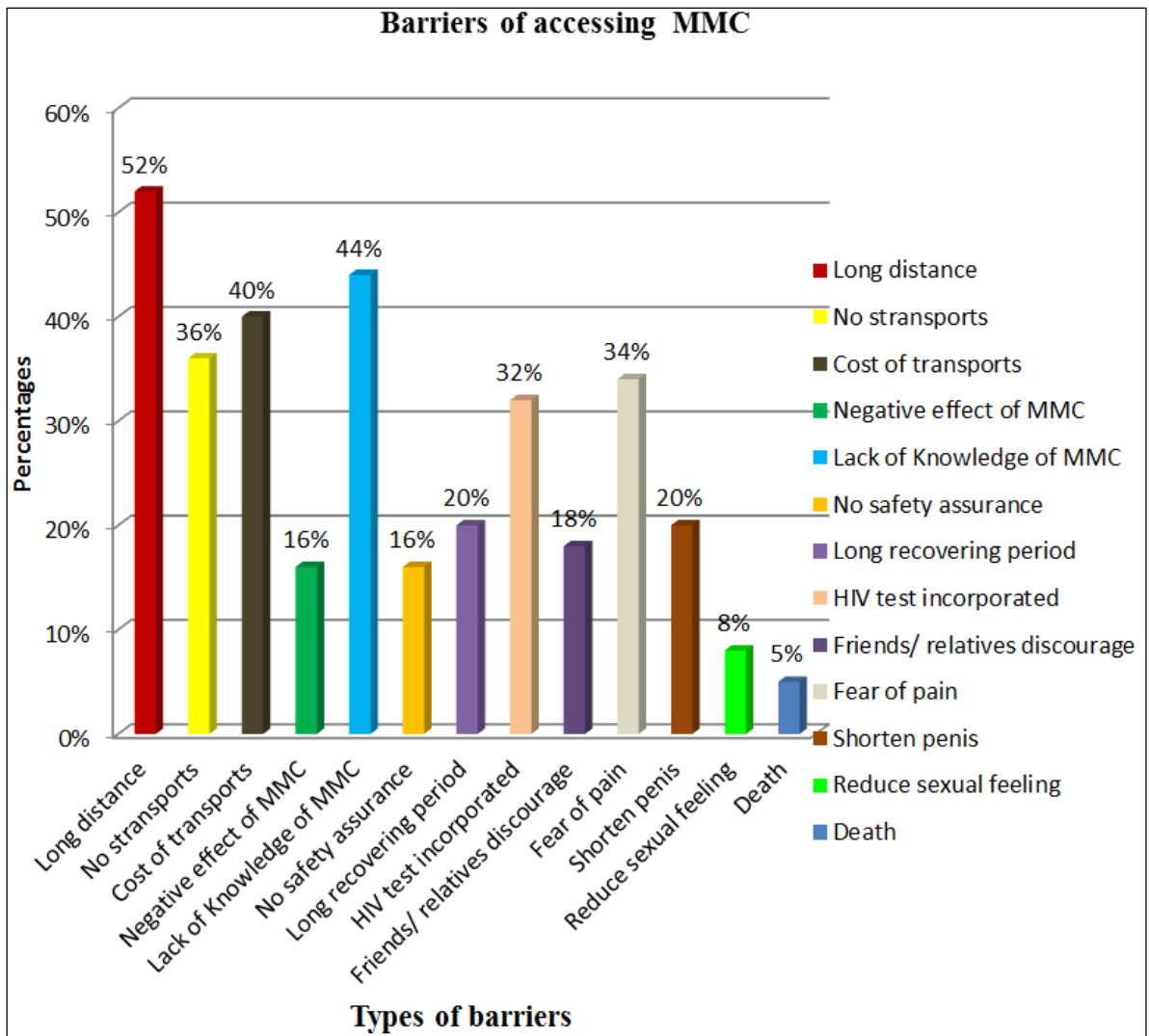


Figure 10.7. Barriers of accessing medical male circumcision services.

The respondents were required to identify barriers to access MC services. The results revealed that 52% of respondents cited that long distances to access MC as the major barrier, this is further worsened when 36% of respondents said there are few of transport and 40% of respondents said the transports are available but costly to come to the hospital to access the MC. Fewer respondents (32%) cited that lack of knowledge as hindering factor for male to be circumcised and 32% respondents said that the incorporation of HIV testing is a challenge, because they are force to know their HIV status even if they do not want to be tested. Fear of adverse events and the most highlighted one is pain was also a major factor with 34% of respondents. Moreover, some respondents said they are afraid that MMC can shorten their penis while 8% of respondents said the MC will reduce their sexual feeling and final the 5% respondents cited that they are fearing of death of they have to be circumcise.

10.5. Strategies Identified by Respondents to Increase Awareness

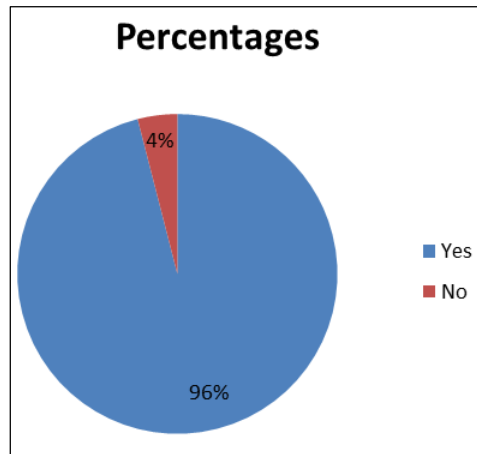


Figure 10.8. Encourage others to go for MMC.

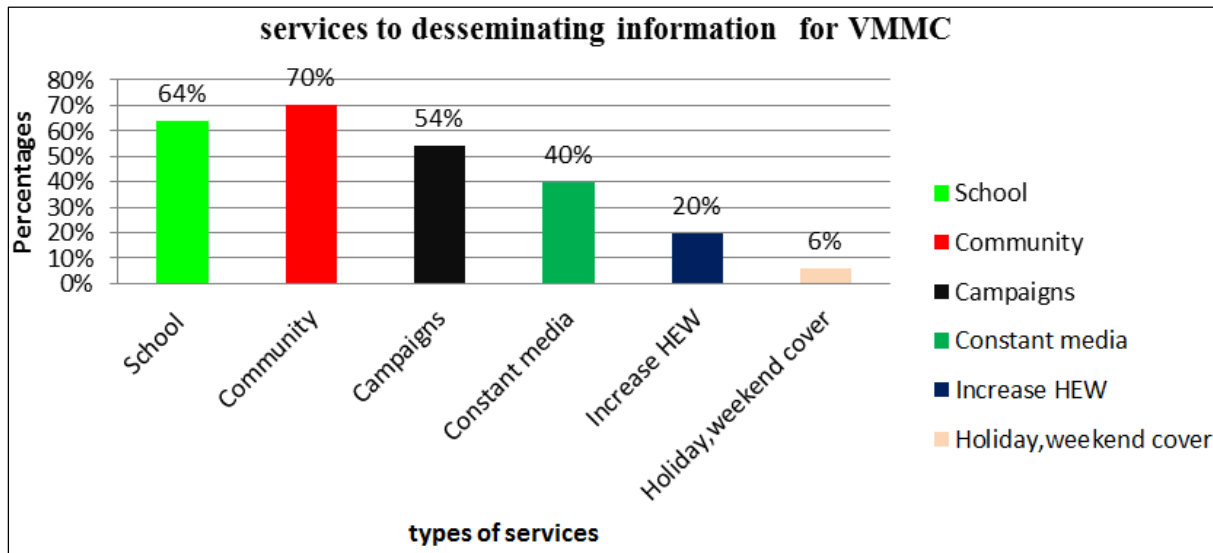


Figure 10.9. Need to be done to encourage other men to go for VMMC services.

During the interviews the respondents were asked what can the Ministry of health and social services need to do to increase the numbers of men to go for VMMC.

70% of the respondents said that the health personals need to involve the community by educating them the benefit of VMMC in their live especial men, while 64 % of respondents said school going learners need to be educated and further said that if possible the MMC should be incorporate in the syllabus so that learners are taught the benefit of MMC. 54% of respondents cited that the government need to have many MMC education campaigns in all corners of Namibia.

Table 10.13. Strategies to involve all men VMMC in the country.

Types of strategies	percentages
Address school of deaf and blind learners	23%
Educate/ training communities (meeting with men)	12%
Address remote villages	34%
Road shows	28%
TV dramas	22%
Visit sports grounds	5%
Radio	38%
TV	40%
Drama	22%
Newspapers/ magazines	28%
Community notices	15%
Traditional leaders	40%
Religious leaders	33%
Posters	12%
Political leaders	10%

The figure above shows types of strategies on how the information regarding on VMMC can be disseminating so that many men are encourage participating in the MMC services. During the interviews 40 % percentages of respondents cited that TV is one easy ways of giving the information to the communities while 23 percentages said the disadvantages groups should also be given this information since so that they get the same benefit like people living in the country. 34% of respondents suggested that people that are in the remote villages need to be given the same information and educated them the benefits that MMC in their lives. Only fewer respondents said political leaders should also take part in giving the information to their members.

10.6. Correlation Analysis

Below figure 27 shows the correlation matrix of the study, it shows the different strength of linear relationship between knowledge men have on medical circumcision as HIV prevention strategy, attitude men have on male circumcision and practice of male circumcision.

The variables were:

- (1) Knowledge
- (2) Attitude
- (3) Practice

All measures were recorded on a five point Likert scales anchored by strongly agree (1), agree (2), neutral (3), disagree (4) and strongly disagree (5) except for practice which anchored on yes (1) and no (2)

Correlations

		Knowledge	Attitude	Practise
Knowledge	Pearson Correlation	1	.901**	.783**
	Sig. (2-tailed)		.000	.000
	N	50	50	50
Attitude	Pearson Correlation	.901**	1	.745**
	Sig. (2-tailed)	.000		.000
	N	50	50	50
Practise	Pearson Correlation	.783**	.745**	1
	Sig. (2-tailed)	.000	.000	
	N	50	50	50

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

Figure 10.10. Correlation analysis between knowledge, attitude and practice.

10.7. Source: SPSS

The correlation matrix above shows the direction and strength of the correlation between knowledge, attitude and practice. The correlation between knowledge and attitude showed a strong positive correlation. The correlation coefficient being 0.901 and the corresponding p-value at 0.000 which is less than the benchmarked 0.05. Thus implying that at 5% level of significance, return on knowledge is linearly related to attitude. Therefore the knowledge men have on medical circumcision as HIV prevention strategy influences the attitude men have on male circumcision.

The correlation between knowledge and practice showed a positive correlation of 0.783 and

the p-value lies at 0.000, that is, it has correlation significance at 5% level of significance. The statistical hypothesis for this p-value is:

- (1) H_0 : Knowledge men have on medical circumcision as HIV prevention strategy has no significant impact on their practice of male circumcision.
- (2) H_1 : Knowledge men have on medical circumcision as HIV prevention strategy has significant impact on their practice of male circumcision.

Because $p < 0,05$ ($0.000 < 0.05$), we reject the null hypothesis at 5% level of significance and conclude that knowledge men have on medical circumcision as HIV prevention strategy has significant impact on their practise of male circumcision.

The correlation between attitude and practice showed a positive correlation. The correlation coefficient being 0.783 and the p-value at 0.000 which is less than the benchmarked 0.05. Thus implying that at 5% level of significance, return on attitude is linearly related to practise. The statistical hypothesis for this p-value is as follows:

- (1) H_{0A} : Attitudes men have on male circumcision has no significant impact on their practice of male circumcision.
- (2) H_{1A} : Attitudes men have on male circumcision has significant impact on their practice of male circumcision.

Since $p < 0.05$ ($0.000 < 0.05$), we reject the null hypothesis at 5% level of significance and conclude that attitude men have on ale circumcision has significant impact on their practice of male circumcision.

Lastly, the finding of the study clearly demonstrated that the knowledge men have on medical circumcision, and that attitudes men have on male circumcision have great significant impact on their practice of male circumcision in Rundu, Namibia.

In conclusion, the first section provided the results of the study. The findings of the study were presented through tables, figures and graphs. All respondents were uncircumcised and the majority were knowledgeable about male circumcision and its benefits. Most of the respondents were willing to be circumcised as well as referring a friend.

From the findings it was found that knowledge men have on medical circumcision as HIV prevention strategy has significant impact on their practise of male circumcision and that

attitude men have on male circumcision has significant impact on their practice of male circumcision in Rundu, Namibia.

11. Discussion

11.1. Sample of Demographics

The study was conducted in Rundu clinic in Namibia on the male population between the ages of 15 to 49 uncircumcised. The study excluded women's views and only men's views were used in the study which are of vital importance in the decision making process as evidenced by results. There were 66% of respondents who participated in the study completed secondary level of education and 16% completed tertiary level. Hence these were evidenced that literacy rate is high in the respondents who participated in the study. The fact that literacy rate were high among respondents, the investigator suggest that policy makers need to use this vantage stance and focus on health education campaigns to promote MC uptake. Likewise Halperin et al (2005) and Nnko et al (2001) reported that educational level was associated with higher rates of MC especially in non-circumcising communities.

The statement proved to be true, during the study majority of respondents who came for VMMC were literate meaning they can read and write. The investigator suggest if the numbers of VMMC to increase unless the government (Ministry of health and social services) should do the following as were suggested in the interviews by respondents namely have more campaigns through Radio, involving in the traditional leaders, religious leaders, have more drama on TV and radio about VMMC. Put more posters in the communities that show the benefits of MMC. Have road shows and last but not list involve in the marginalised people and disabilities people in all the activities that can encourage men to participate in the VMMC.

11.2. Knowledge

The researcher found that 5% level of significance, knowledge men have on medical circumcision as HIV prevention strategy has significant impact on their practise of male circumcision. Respondents revealed that benefit of knowledge of male circumcision and its association reduces risk of HIV infection. Most respondents demonstrated that male circumcision is an effective HIV prevention method and supported it.

The association between MC and HIV, STI, and reduced risk of penile cancer are in line with

results from other studies in Africa. Various studies have highlighted the effect of MC on sexually transmitted infections and HIV infection as well as penile cancer (Weiss et al 2000, Doyle et al 2012, Wilson & De-Beyer 2006).

Overall the results of the current study revealed that respondents were knowledgeable about the health benefits of MC, however only few respondents were not fully convinced. Equally the investigator suggesting that intensive information regarding on education and communication are essential to the male especial in Namibia in order to promote universal understanding of the benefits of VMMC.

11.3. Attitudes

The researcher found that at 5% level of significance, attitude men have on male circumcision has significant impact on their practice of male circumcision. Willingness to be circumcised was high among respondents and more than half respondents viewed male circumcision as an effective preventive measure for both HIV and STI. The current study shows that 80% of participants believe that the foreskin facilitates infection with HIV virus as one participant stated “this skin is a passenger for the virus”. There might be an attitude/perception transformation especially with societies possessing high level of education, as most of the respondents’ attained secondary education. The wide spread interaction of various ethnic groups practicing MC helps to foster change in attitude of others.

11.4. Practice

The majority of the respondents cited that prevention of STI and hygiene purposes as the precipitating factors for MC. A Kenyan study revealed that the two principal reasons favouring MC were reduced risk of STI and hygiene. (Bailey et al, 2002). This indicates that participants in this study were either unaware that HIV infection is in fact a sexually transmitted disease or perceive themselves not at risk of HIV infection. As a result it would be vital for information education to advocate interventions which communicate these deficiencies and place emphasis on the role of MC as an HIV prevention method. 58% of participants cited that MC should be done in winter and less than half did not support the statement (34%) cited for winter were mostly, that its part of tradition and it is less pain in winter. This further enlightens that even though the respondents have knowledge, we need to educate the community more on benefits so as to realize that HIV is not seasonal and that MC at health facilities ensures pain free procedures.

11.5. Barrier Leading to Low Uptake of VMMC

Even though most respondents were aware of the benefits of MC, accessibility to health care facilities which provide MC was cited by 52% respondents stating that distance to facilities were too far to the clinic for MC. The other barrier was Lack of knowledge whereby 44% of participants cited as a barrier especially in the inland villages and the marginalized communities where there are no clinics. 70% of the participants cited that fear were some of the hindrance factor. Moreover 34% of participants were afraid of side effects of MC. One respondent stated that “I have a short foreskin they may cut off the penis”. A total of 10% cited fear of cutting off the penis, and that they may shorten the penis (14%). Even though most respondents agreed that it was important to know the status, 96% of participants advocated for testing before MC yet they remain sceptic and afraid of testing as evidenced by 34% of respondents. A few of the participants stated they were afraid of death.

These findings are in line with previous studies conducted by Bailey et al (2002) and Kebaabetswe *et al* (2003). Fear of pain is among the most cited barriers to MC. This was confirmed in a quantitative interview where 44% of respondents strongly agreed or agreed that MC was painful and unbearable only 24% of the participants disagreed.

11.6. Sources of Information

The results of the study revealed that 54% of the information is disseminated through friends and relatives. Radio and television were among the major sources of information (56%) regarding MC. Information from one friend to another maybe distorted leading to failure to decision making in regards to VMMC. There is poor access to information in the remote inland where there is no TV or radio (58%) cited this gap might hinder effective uptake of VMMC. One respondent stated “information is just in town and worse for us the deaf and dump no one cares to talk to us” this participant was deaf and dump. Moreover posters, traditional leaders or religious leaders were cited as the least effective sources of information among the current study participants. Of note is the efforts of TCE (24%) of the participants cited they got information through TCE. A challenge still remains in which the information is circulated to the public. Bearing in mind that religious and traditional leaders are the pillars of the community, it is vital to involve them in information campaign mobilization in a bid to fight the HIV/AIDs infection.

11.7. Strategies to Increase Awareness

Most respondent during face to face interview cited that not much is being done to increase awareness. They felt the following should be taken into consideration namely: The ministry of health and social services should target schools, to include the schools of the deaf and dumps as well as the blind and give information for VMMC. Equally, the community awareness campaign should include in training of focal people in the community, 30% advocated holding meetings with men through the chiefs (Fumu) and group discussion with the youth in marginalised areas. Moreover, the media should promote VMMC through TV dramas in local languages and use celebrities for example singers like “the Dogg” in all regions. In the vein the interactive channels like road shows and community theatre should play critical role in capturing the attention of the youths and messages and should be presented in a form that entertains people especial the youth. Final the provision of IEC material written in local languages for VMMC should be given to all communities’ members and post in all corners of Namibia.

The other services the respondents that can also prevent STIs and HIV were mentioned. For example 82% of the respondents cited that condoms are the only other HIV prevention method currently available to them. 22% mentioned others. The respondents felt that VMMC should provide others services for example couple counselling, behaviour change counselling, provide treatment for STI on their sites, provide condoms and antiretroviral treatments

12. Conclusion

The study set out to establish the knowledge, attitude and practice of men about male medical circumcision, a case of uncircumcised men aged between 15 to 49 years in Rundu. The study revealed that most of the participants are willing to be circumcised and have the knowledge of the benefits of MC. These findings are encouraging considering that non circumcising communities like the kwangali which were the majority tribe are accepting the practice. This may be attributed to the migration and integration of diverse ethnic groups, exposure to other cultures and practices. Though in the current study culture might not be a significant reason for adoption of MC, it is important that individual choices are respected. However, there is need for open dialogue especially with the Nyemba tribe in Kavango region to help mobilize the community and

continuously improve MC services. Based on the study finding, the respondents displayed good knowledge of benefits of VMMC for example hygiene, risk reduction in HIV, STI and penile cancer. This knowledge is attributed to various sources of information. The use of TV and radio has ensured that a wider population access information thereby sharing it between friends and relatives.

Although MC seems to present a lot of benefits but it also have its down fall. For instance, the current study revealed that the pain and complications associated with the procedure for example long healing period inaccessible service, long distance to clinics and non-availability of transport remain a challenge. In conclusion male circumcision has compelling evidence and the potential to avert new infections as an HIV prevention strategy.

Recommendations

Taking the study findings into consideration, the following recommendations are made:

There is need to acknowledge the need for adequate education and awareness rising campaigns about MC for HIV prevention.

- (1) It is essential to ensure the dissemination of accurate and factual information, highlighting MC health benefits in STI and HIV prevention particularly in communities with lower level of education. Information should emphasize that MC does not provide absolute protection against HIV infection.
- (2) The work place should design specific MC information and communication messages, as well as education and awareness campaigns as part of HIV prevention strategy.
- (3) Non circumcising communities should be provided with male medical IEC material in local languages
- (4) The Ministry of Health and Social Services should consider expanding MC services to underserved areas seeing that the inability to access MC services is one of the major barriers.
- (5) Advocators, implementers and local government, through national policy should articulate and provide understandable and accurate information to men highlighting risks and benefits of MC

- (6) The use of various channels of communication should be enhanced, media communication channels should dispel myths about MC and promote health benefits
- (7) Health Workers should be prepared to camp out in remote areas to offer VMMC services.

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