Male circumcision as an HIV and AIDS prevention strategy: perspectives and experiences of students in University

Master's Dissertation by:

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COLLEGE OF HUMANITIES

School of Built Environment and Development Studies

DECLARATION

I, Malibongwe Julius Dumisa declare that:

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ABSTRACT

HIV/AIDS is a critical public health issue in South Africa. Medical male circumcision has been acknowledged as one of the leading reduction strategies to combat HIV and other sexually transmitted infections. The aim of this study was to investigate the perspectives and experience of medical MC as an HIV prevention strategy amongst University of KwaZulu-Natal (Howard College) in Durban. The study employed a qualitative design using purposive and snowball sampling techniques and semi-structured interviews to recruit participants and record data from participants. Fifteen interviews were conducted, with both uncircumcised and circumcised men. The study found that male students generally acknowledge the role of MC in reducing HIV infection, additionally they can differentiate between medical male circumcision and traditional male circumcision. Moreover, the promoting factors for the uptake of MC were improved hygiene, the role of partners, reduced risk of contracting HIV and STIs, community support and improvement in male's sexual performance and sexual experience. The key inhibiting factors that discouraged males from seeking circumcision include: fear of pain during and after the procedure, the role which is played by the staff in the clinics and hospitals, the six-week healing period before engaging in sexual activities, unwillingness to modify their body, partners and families' negative influence in influencing circumcision and the usage of substances like alcohol and drugs. The recommendations in this study mainly focus on the need to increase the coverage of medical MC in Durban and to increase the uptake among males from ages 14-50 years. The recommendations include the need to evaluate the inhibiting factors which are barriers for males to undergo circumcision and promote the importance of enabling factors for males to undergo medical circumcision. Campaigns should focus on other promoting factors like hygiene, community involvements and improvement in sexual experience and sexual appearance, lastly the reduction of HIV and other sexually transmitted infections. When observing inhibiting factors, social mobilisation should focus on strategies to alleviate pain or fear of pain. The introduction of PrePex™ device would be a good method and subsequent expansion in the country. The different fears that males consider such as impact on sexual performance, discomfort and fear of embarrassment in the health care institutions would be allayed or alleviated. One of the most important factors is the need of health staff to be fully trained and clients should be fully assured that the entire circumcision process would be positive and easy.

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ACRONYMS AND ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
HIV	Human Immunodeficiency Virus
KZN	KwaZulu-Natal
MMC	Medical Male Circumcision
PEPFAR	President's Emergency Plan for AIDS Relief
SRH	Sexual and Reproductive Health
STI	Sexually Transmitted Infection
RCT	Randomised Controlled Trial
TMC	Traditional Male Circumcision
UKZN	University of KwaZulu-Natal
UNAIDS	Joint United Nations Programme on HIV and AIDS
VMMC	Voluntary Medical Male Circumcision
WHO	World Health Organisation

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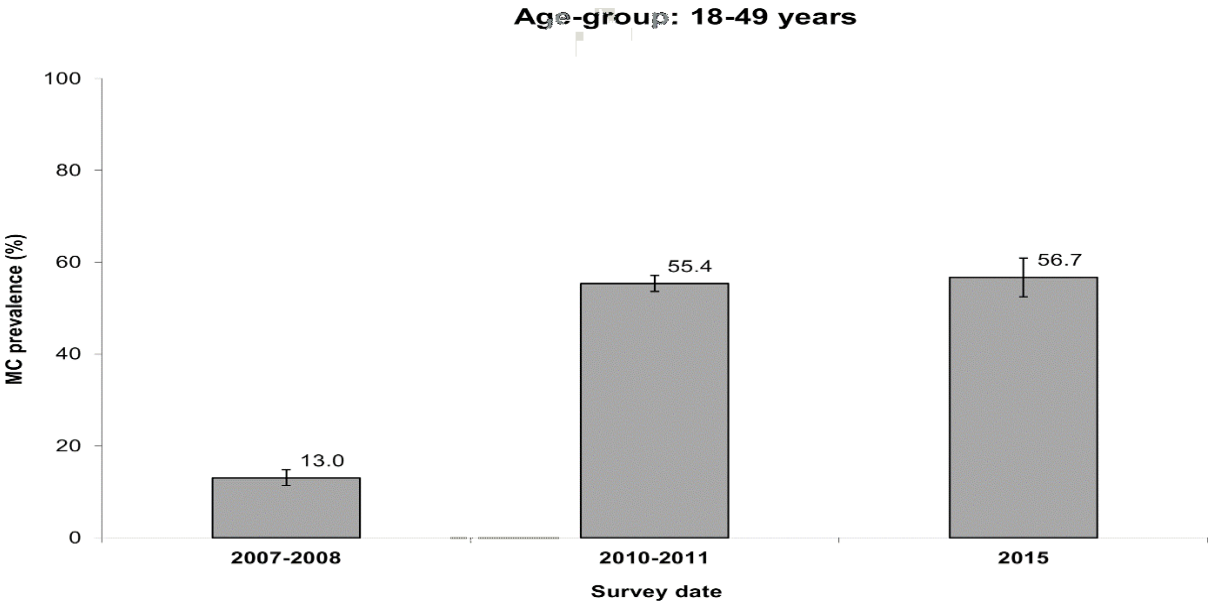
CHAPTER ONE: INTRODUCTION

1.1 Background to the study

In 2018, approximately 7.52 million people in South Africa were living with HIV (Statistics South Africa, 2018). Additionally, the HIV prevalence rate among people aged from 15 to 49 years in South Africa is 20.6 percent; 26.3 percent for women and 14.8 percent among men (Simbayi et al., 2018). There is currently a vast amount of interest in the role of male circumcision (MC) in preventing HIV infection (Simbayi et al., 2018). Research has shown a lower risk of infection in circumcised males in comparison to those that are uncircumcised. In populations where male circumcision is common there is a lower prevalence of HIV infection (World Health Organisation (WHO), 2008). The protective effect of medical male circumcision in reducing HIV infection were initially demonstrated in three randomized controlled trials (RCT) in South Africa (2005), Kenya (2007) and Uganda (2007). These studies revealed the risk of HIV infection was reduced by 60 percent among circumcised men (Dickson et al., 2011).

In the case of South Africa, the first RCT took place in the Orange Farm Township situated south of Johannesburg (Simbayi et al., 2018). Uncircumcised, heterosexual males (15 years and older) were offered free medical male circumcision. Half of them would undergo the procedure immediately (the treatment group) and the others, 21 months later (the control group) (Simbayi et al., 2018). Sexual behaviour among the circumcised and uncircumcised males in this community was the same (Simbayi et al., 2018). After 17 months, the number of new HIV infections in the control group was higher than in the treatment group, the study concluded that HIV infection was 60 percent lower in the treatment group (Simbayi et al., 2018). Over the years, the number of male circumcisions steadily grew. The figure below substantiates that the prevalence of medical circumcision increased between 2007 and 2015.

Figure 1.1: Medical Circumcision prevalence among men in South Africa (Orange Farm) ages from 18-49 years from 2007 to 2015



Source: Marshall et al. (2015)

World Health Organisation (WHO) and the Joint United Nations Programme on HIV/AIDS (UNAIDS) recommended that male circumcision should be promoted as an additional method of HIV prevention and that countries with generalized HIV epidemics should urgently scale up circumcision services (WHO, 2007). According to the Simbayi et al. (2018), 31.8 percent of males aged 15 - 64 years old were reported to have undergone medical circumcision, 43 percent of males aged 15-24 were medically circumcised, while males aged 0-14 and 55-64 years had the lowest prevalence of medical circumcision at 12.0 percent and 21.8 percent, respectively. Additionally, among the 13.4 percent of circumcised males aged from 0-14 years, 89.9 percent were medically circumcised.

Male circumcision can be defined as the surgical removal of the foreskin, the tissue covering the front of the penis (glans) and is usually practised all over the world by males for cultural purposes or hygiene purposes (WHO, 2009). There are two types of male circumcision namely medical circumcision and traditional circumcision. Medical male circumcision includes HIV testing and counselling, provision and promotion of condoms; and male circumcision which is the removal of the foreskin, surgically or using a device (WHO, 2009).

Traditional male circumcision is viewed as a sacred and irreplaceable cultural rite of passage to manhood (El-Hout and Khauli, 2007). Douglas et al. (2018) asserts that several South African ethnic groups have been practicing the ritual of male circumcision for centuries. Male circumcision initiation schools form part of the cultural practice in South Africa and the practice is protected by the South African Constitution. For instance, traditional circumcision is practiced in the Xhosa and Venda ethnic groups in South Africa and a boy is recognised as man after undergoing circumcision. It is important to emphasise that circumcision performed under non-clinical conditions have a high risk of complications and characterised most traditional circumcision ceremonies. Overall, male circumcision (MC) can be performed for various reasons, including religious, cultural and the advancement of hygiene (Taljaard et al., 2006).

Epidemiological studies have demonstrated that HIV/AIDS prevalence is high in nations where circumcision is rarely performed (Bongaarts, Reining, and Conant, 1989; Moses et al., 1995). Moreover, various studies have demonstrated that the risk of HIV infection in uncircumcised heterosexual men is 1.8– 11.2 times higher than in circumcised men (Bailey, Plummer, and Moses, 2001; Siegfried et al., 2009; Weiss, Quigley and Hayes, 2000).

During his term of office, former President Mbeki along with the Health Minister Manto Tshabalala-Msimang and other members in his cabinet were infamous for their denial of the impact of HIV/AIDS in South Africa as they were opposed to the utilization of antiretroviral therapy (ARVs) to treat AIDS (Cullinan and Thom, 2009). However, arguments began to mount against the Mbeki administration to take the treatment of HIV/AIDs in South Africa more seriously. Both Mbeki and Tshabalala- Msimang were sceptical about the effectiveness of ARVs, Tshabalala-Msimang rather pushed for beetroot and garlic utilization as methods for fighting HIV disease (Nattrass and Ashforth, 2005). The government's unwillingness to intercede to control the epidemic was a dire cause for concern, moreover, it negatively affected the spread of HIV/AIDS.

South Africa has the biggest and most high-profile HIV epidemic in the world, with an estimated 7.52 million people living with HIV in 2017 (Statistics South Africa, 2018). South Africa accounts for a third of all new HIV infections in southern Africa. In 2017, there were 270,000 new HIV infections and 110,000 South Africans died from AIDS-related illnesses. South Africa has the highest antiretroviral treatment (ART) programme in the world and these efforts have been largely financed from its own domestic resources (Simbayi et al.,

2018). In 2015, the country was investing more than $1.34 billion annually to continue its HIV programmes. The success of this ART programme is evident in the improvements in national life expectancy, rising from 61.2 years in 2010 to 67.7 years in 2015 (Simbayi et al., 2018).

While HIV prevalence remains high among the general population, it varies markedly between regions. For example, HIV prevalence is almost 12.2 percent in KwaZulu-Natal compared with 6.8 and 5.6 percent in Northern Cape and Western Cape, respectively (Simbayi et al., 2018). HIV is transmitted through direct contact with infected mucosal membrane or natural fluids, for example, blood, semen and breast milk. Studies have demonstrated that the circumcised penis is enclosed by a thick layer of keratin, while the inner mucosal surface of the foreskin has no such protective layer (Szabo and Short, 2000). The mucosa of the inner foreskin has more prominent densities of HIV and AIDS target cells making the foreskin exceedingly susceptible to HIV and AIDS infection. At the point when HIV meets the foreskin and cervical tissue in culture, the foreskin takes up nine times more HIV and AIDS than what the cervical tissue does (Bailey, 2001; Patterson et al., 2002).

Several studies have revealed a significant protective impact of medical MC against HIV and other sexually transmitted infections (STIs) in men (Bailey, Plummer, and Moses, 2001; Cameron et al., 1989; Dark et al., 2000; Lavreys et al., 1999; Siegfried et al., 2009; Urassa, Todd, Boerma, Hayes, and Isingo, 1997; Weiss, Quigley, and Hayes, 2000). Ecological studies demonstrate that the countries in sub-Saharan Africa including South Africa are with the highest HIV/AIDS prevalence and more pronounced where MC is minimally practiced or not generally done (Halperin and Bailey, 1999; Moses et al., 1990). As indicated by epidemiological and experimental proof to date, MC could possibly lower the HIV/AIDS infection rate in these countries where it is most prevalent, particularly Africa. Nonetheless, the efficiency of the interventions will be contingent on numerous factors, for instance, the extent to which MC is accepted and taken up by men in these communities.

It is plausible that if the rate of male circumcision increases, this could reduce male-to-female HIV transmission. A study conducted in Eastern and Southern Africa, following female partners for 18 months, found that the risk of HIV infection of females with circumcised partners was 40 percent lower than females partnered with uncircumcised men, although this reduction in risk was not statistically significant (Baeten et al., 2010). In Southern Africa, the

prevalence of adult male circumcision is low and is assessed to be around 15 percent in countries like Swaziland, Zambia and Zimbabwe (WHO and UNAIDS, 2007).

The rate of circumcision is higher among men with higher levels of education (Halperin et al., 2005; Nnko et al., 2001) as well as men who live in urban areas (Nnko et al., 2001). Men with higher education levels may have more information and social contact with various ethnic and religious groups. Therefore, this is likely to improve the probability of circumcision given such socio-behavioural interactions (Urassa, Todd, Boerma, Hayes et al., 1997). The advent of HIV infection in the early 1980s encouraged researchers to work on the connection between male circumcision and HIV (Rennie et al., 2007). According to Fink (1986) there is a protective effect of male circumcision against HIV and other sexual transmitted diseases. In addition, male circumcision decreases the chances of HIV and a reduction of micro tears in the foreskin during sexual activities (Rasool et al., 2011).

1.2 Research problem

This research study is centred on the efficacy of medical male circumcision as one of the HIV prevention programmes. The rise of HIV/AIDS and resulting deaths has a dire impact on social structures bringing about families without guardians. HIV/AIDS has additionally affected employees' work-life, because of increased absenteeism, this consequently leads to less productivity thus unfavourably influencing the economy of countries. The response to the control of diseases, comprises a major aspect of multi-pronged prevention strategies to advance the take-up of male medical circumcision in both government health institutions and traditional initiation schools. Currently, the traditional male circumcision is only applicable to certain ethnic groups and the general take-up of medical MC is negligible because that group is not well educated about the benefits of male circumcision in general. The prevention of HIV infections is still the leading challenge in health facilities. The ecological studies show that the countries in Sub-Saharan Africa with the highest HIV infection male circumcision is rarely practised (Westercamp and Bailey, 2007). Male circumcision in Tanzania was introduced to decrease the HIV spread, however the introduction of circumcision was not fully accepted by males (Westercamp and Bailey, 2007).

South Africa is regarded as the epicentre of HIV. The prevalence rates of HIV are high, and the lack of resources means male circumcision in South Africa is still a concern for the

government, moreover the scarcity of trained counsellors and health workers who are the main backbone of the prevention of HIV and STIs will still be an ongoing issue (WHO, 2012). The issue of health being under resourced makes it difficult for educating and counselling men on the accurate perceptions and behaviours on male circumcision. Educating and informing men about medical MC is set to be a burden for public health communications. The South African Department of Health has been facing different health challenges, however they have been improvements and efforts in the country. The Department of Health has improved the health facilities for the poor, however the uptake of male circumcision has not risen or increased in South Africa because the health seeking patterns in males has not changed dramatically (WHO, 2012).

Ramkissoon et al. (2012) states that prevention remains a central pillar of any extensive national HIV/AIDS strategy and its success will influence the future trend of the epidemic, help to manage treatment access, and will likewise mitigate the future cost to society. It is imperative to conduct research examining the perspectives of male circumcision especially by young males thus this research focuses on university students. Further, this study also recognises the high prevalence rate of HIV/AIDS in South Africa, particularly in the KwaZulu-Natal Province and addresses a gap in the research by probing the perspectives of male students. Therefore, probing the perspectives of university male students is potentially important as it will enable a better understanding of how men undergo male circumcision (both medical and traditional) for HIV/AIDS prevention. This will also enable a contemporary understanding of the perceptions of male circumcision as a preventative measure.

1.3 Aim and Objectives

The overall aim of the study is to determine the perspectives of students of male circumcision as an HIV strategy. The specific objectives are:

- To determine awareness of male circumcision as an HIV and AIDS prevention strategy.
- To determine attitudes of male students towards male circumcision as an HIV and AIDS strategy

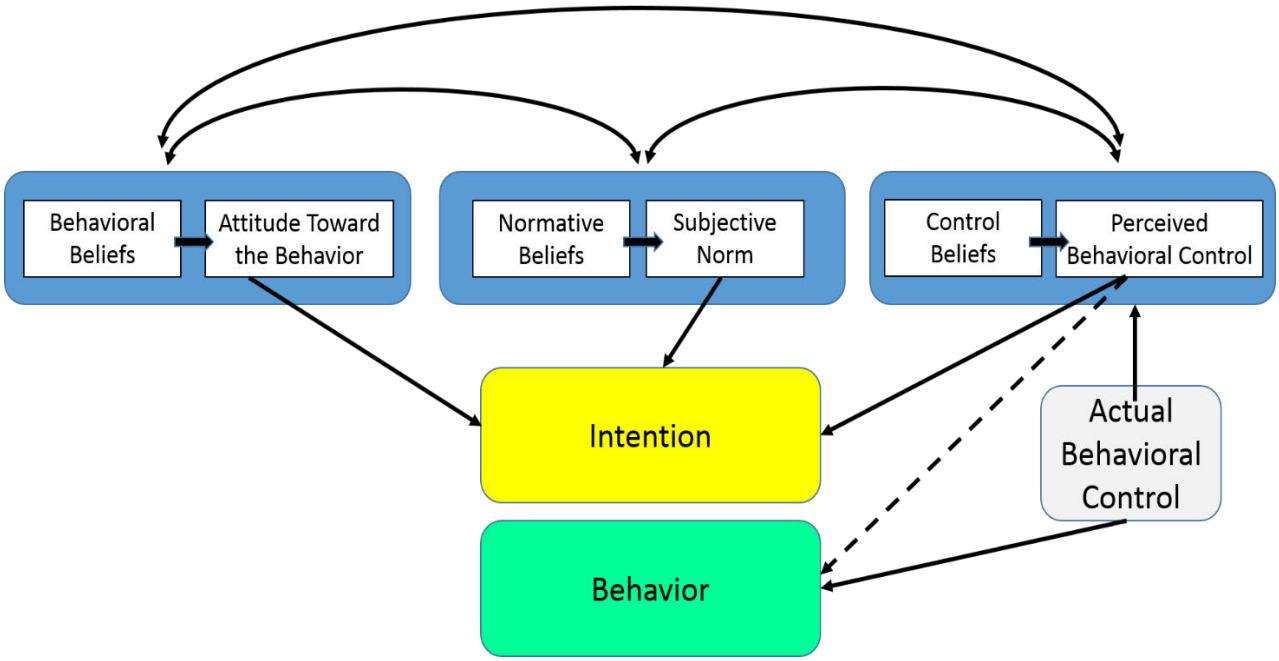
- To ascertain challenges and opportunities for the use of male circumcision as an HIV and AIDS prevention strategy.

1.4 Theoretical framework

The theory that guides this study is the theory of planned behaviour by Icek Ajzen (Ajzen, 1991). The theory of planned behaviour predicts an individual's intention to engage in a behaviour at a specific time and place. It posits that individual behaviour is driven by behaviour intentions, where behaviour intentions are a function of three determinants: an individual's attitude toward behaviour, subjective norms and perceived behavioural control (Ajzen, 1991). The researcher chose this theory because it creates an understanding on how it represents person's motivation in the sense of his or her conscious plan or decision to perform certain behaviour (Conner and Armitage, 1998). Generally, the stronger the intention, the more likely the behaviour will be performed. If more males were circumcised at an early age this would have an impact on every male which may result in them engaging in circumcision. If circumcision was a norm among males, the number of HIV/AIDS would decrease. If males acknowledge the importance of circumcision as a HIV/AIDS prevention strategy they will be more inclined to undergo the procedure.

The theory of planned behaviour was selected as the most appropriate theoretical framework for this study. This is because it has been used successfully to understand a variety of health behaviours such as health services utilization and in this current study it is used to explain the uptake of the HIV reduction strategy of medical MC. The premise of the theory is that behaviour, such as opting or rejecting to undergo medical MC is influenced by attitudes and subjective norms (Ajzen, 1991). The theory comprises three facets which are the following; firstly, attitudes entails the general view a person has of the outcome of choosing the planned behaviour. Secondly, subjective norms consider the person's personal beliefs and the beliefs of people close to that person. The final aspect is perceived behavioural control which is the person's perception of difficulty of performing the particular behaviour. This will then determine the person's decision to either undergo medical MC or decide not to (Ajzen, 1991).

Figure 1.2: the theory of planned behaviour



Source: Ajzen (1991)

1.5 Structure of the dissertation

This dissertation consists of five chapters. The introduction chapter provides a general overview of MC. It also outlines the rationale for the study, the main objectives and the theoretical framework guiding the study. Chapter two reviews both international and national literature on MC. The chapter also offers critical discussions on the inhibiting and promoting factors of MC. Chapter three looks as the study methodology, looking at the study location, instruments used for data collection, ethical consideration and lastly the limitation of the study. Chapter four presents the research findings according to themes. This final chapter offers a discussion of the findings of the research and align the findings of the research to the existing literature and the theoretical framework. Thereafter this chapter provide recommendations from the research.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature on male circumcision conducted both locally and internationally. The aim of this section of the study is to understand how young men perceive male circumcision as a prevention strategy for HIV/AIDS. Many countries have made remarkable progress in reducing new HIV/AIDS infections. Male circumcision has been identified as an effective strategy for reducing male to female HIV transmission (Siegfried et al., 2009; Szabo, 2000). South Africa remains the epicentre for the disease, with an estimated 7.52 million people living with the virus as of 2017 (Statistics South Africa, 2018). HIV prevention remains the primary method of controlling the epidemic (Van Dam & Anastasi, 2000), and male circumcision is a highly effective method of reducing the risk of acquisition of HIV in men (Scott, Weiss and Viljoen, 2005). The chapter begins by providing an overview of male circumcision. This chapter also discusses aspects such as the knowledge of male circumcision as well as awareness and acceptability of it. This chapter then reviews factors inhibiting and promoting male circumcision.

2.2 Overview of male circumcision

The origin of male circumcision is unknown but there is evidence that it was practiced in ancient Egypt and is described in the Old Testament (Rain-Taljaard et al., 2003). Male circumcision is the surgical removal of all or part of the foreskin of the penis, and this may be practiced as part of a religious ritual, as a medical procedure, or as part of a traditional ritual performed as an initiation into manhood (Siegfried et al., 2009). Male circumcision is a common surgical procedure among men, and this has been routinely practiced with infants in many countries for religious and cultural reasons (Malone & Steinbrecher, 2007). This surgical procedure originated more than ten decades ago, and was performed for religious, ritualistic, and cultural reasons. It was not until the 19th century that the procedure was "medicalised." (Malone & Steinbrecher, 2007). It has been noted that most men who had undergone male circumcision were guided by cultural and religious values to transition from childhood into manhood (Lukobo & Bailey, 2007; Siegfried et al., 2009). When the operation is performed as a traditional rite of passage, it is usually done either before or at puberty or

sometimes, among some Arab people, immediately before marriage (Rain-Taljaard et al., 2003). In most South African tribes, it is performed around the age of puberty. Medical male circumcision has become a well-known practice in Africa, as most males are aware of the benefits associated with this practice in preventing them from contracting HIV. Literature shows that most studies on male circumcision were published before 2010, when scholars reflected on the randomized controlled trials (RCTs) that were conducted in Kenya, South Africa and Uganda to understand how uncircumcised and circumcised men, and their partners, perceived male circumcision as a strategy for HIV/AIDS prevention.

The health benefits of circumcision dates back to the 1850s, whereby greater protection from syphilitic infection was attributed to the protective influence of male circumcision (Hutchinson, 1855). Around the 1950s, Wynder et al. (1954) found that there was an association between cervical cancer and the lack of circumcision among women's sexual partners. Then decades later in 1986, scientists hypothesized a close link between the presence of the foreskin and AIDS in men (Fink, 1986). Additionally, Cameron et al. (1986) conducted a prospective study among men who are clients of female sex workers in Kenya and found an increased risk of HIV acquisition among uncircumcised men. In the following years, scientists and scholars looked at ecological data and found that in many populations where there was a lack of circumcision among men, there was a correlation with higher HIV prevalence (Reed et al., 2012). In 2000, studies from Sub-Saharan Africa demonstrated a 58% protective effect of circumcision in the general population of males (Weiss, Quigley & Hayes, 2000). Additionally, the findings by Auvert et al. (2001) in 4 cities in Sub-Saharan Africa also demonstrated that male circumcision was the greatest predictor of HIV prevalence.

2.3 Knowledge, awareness and acceptability of male circumcision

According to Ikwegbue, Ross and Ogbonnaya (2015), low levels of knowledge of the potential benefits of male circumcision is concerning and points towards a need for expansion of information accessibility. When people are more aware of the widespread benefits of circumcision they are more likely to become accepting of this practice (Albert et al., 2011). According to Bonner (2001), male circumcision was recognised as an acceptable HIV prevention strategy in many settings, as adult men in several countries had sought male circumcision for positive reasons, including protection against HIV and other STIs.

Additionally, there has been strong evidence that male circumcision reduces HIV incidence in men (Njeuhmeli et al., 2011). This section presents knowledge and awareness about male circumcision as well as varying levels of acceptability of this practice across the world.

2.3.1 Knowledge and awareness of male circumcision

Evidence from Sub-Saharan Africa indicated that medical male circumcision reduces the risk of HIV acquisition among males (Jones et al., 2014). However, studies suggested variability when considering knowledge of male circumcision among men. Some studies demonstrated that men are knowledgeable about this medical procedure and other studies show that men have limited knowledge (Jones et al., 2014; Lukobo & Bailey, 2007). Research shows that most individuals who participate in studies concerning male circumcision are knowledgeable about the protective benefits of this medical procedure against HIV and STIs (Faleye, 2014; Herman-Roloff et al., 2011; Hoffman et al., 2015; Lagarde, 2005; Lukobo & Bailey, 2007). In Faleye's (2014) study in South Africa, it was clear that young men who utilised medical male circumcision services were knowledgeable about the effect it has on the transmission of HIV, and that it only provides partial protection therefore, condoms are still needed to prevent HIV. Additionally, the study showed that knowledge about HIV transmission was high, whereby 86.3% of participants were aware that risky sexual behaviour such as condom avoidance could reverse the benefits of male circumcision (Faleye, 2014).

Westercamp and Bailey (2007) argue that knowledge of male circumcision and its benefits, associated risks and socio-cultural aspects are likely to influence the decision to become circumcised. Khumalo (2017) found that the more knowledgeable an individual is about male circumcision, the higher the likelihood that they would have a positive attitude towards it. Additionally, there are men who have negative attitudes towards male circumcision, as they had limited knowledge about this procedure and they believe that male circumcision only results in sexual and reproductive health complications in both men and women (Khumalo, 2017). In a study that was conducted in Zimbabwe, knowledge about the health benefits of circumcision were low among men due to the lack of promotion of it in the country (Mavhu et al., 2011). Consistent with a study in Kenya, where most participants reported that they heard that male circumcision reduces the chance of getting HIV, however because of their lack of knowledge they were confused about how this is possible or if it is really true (Herman-Roloff et al., 2011). Additionally, in Zimbabwe, knowledge of male circumcision

and its health benefits was low with a proportion of 29% (Mavhu et al., 2011). A study in South Africa found that when respondents were asked about health benefits, 72% knew of at least one health benefit, whereas 28% of participants knew of none (Hoffman et al., 2015). Nearly a third (32%) of the participants identified reduced risk of STIs as a health benefit, but few (15%) explicitly mentioned any link between circumcision and HIV (Hoffman et al., 2015).

Knowledge of male circumcision differs within age groups and level of education (De Cock et al., 2012; Ngalande et al., 2006). Additionally, research suggests that younger individuals are more informed and knowledgeable about male circumcision and those with a higher level of education also have more knowledge about male circumcision (Ngalande et al., 2006). A study conducted in Zimbabwe found that circumcised men had better male circumcision knowledge than uncircumcised ones, as 29% of men with high knowledge were circumcised, compared to 23% with medium (and 16% with low) knowledge (Mavhu et al., 2011). Another study in Zimbabwe among different age groups had shown that males between the ages of 15 to 24 years had more knowledge about the benefits of male circumcision when compared to those males between the ages of 25 to 49 years (Hatzold et al., 2014). With regards to education a study in Malawi showed that men who had primary or secondary education were less likely to acquire knowledge about male circumcision, as compared to those males with a higher level of education (Ngalande et al. 2006). Additionally, a study that was conducted in Botswana among university male students between the ages 18 to 32 years found that the overall respondents' knowledge about male circumcision was high and they were aware about the benefits of male circumcision (Tapera et al., 2017).

The media is an important source of information and as a result, awareness. People are heavily influenced by available information from different platforms such as the television, radio and newspapers. The media has played a huge part in raising awareness about circumcision (Bertrand et al., 2011). This included road shows, community events and football games whereby male attend and partake in the campaigns, and this is considered an effective tool to get information to hard-to-reach individuals. After such gatherings, men expressed their interest in circumcision because of the information given to them (Bertrand et al., 2011). According to Muzyka et al. (2012), the exposure to information about the benefits of male circumcision has led to more young men undergoing circumcision. Additionally, media messages shape popular understandings of the benefits and limitations of male

circumcision, and being able to get such information from trusted sources like radio adverts and television programs has been an influential factor in uptake of male circumcision (Muzyka et al., 2012). Two studies from Uganda and Zimbabwe indicated that participants of all ages reported primarily receiving information about voluntary medical male circumcision from the media (Hatzold et al., 2014; Wicken et al., 2010). Additionally, it was evident that the media was mentioned by younger (57%) and older men (62%) as a valuable source of information about male circumcision for HIV prevention (Wicken et al., 2010). Additionally, it was also clear that young people reported less often than adults that they had received information on male circumcision from health providers (Wicken et al., 2010).

Male and female participants in Zambia had no knowledge of any practices or history of male circumcision in their culture (Lukobo & Bailey, 2007). This is a challenge because in countries where there is little knowledge about male circumcision, male parents did not want themselves or their sons to seek medical male circumcision. Additionally, the lack of knowledge brought about misconceptions pertaining to male circumcision (Tobian, Kacker & Quinn, 2014). However, a study in Zambia found that nearly all of the participants in non-circumcising districts reported that they would take their sons to a health facility to be circumcised, if they were educated on the advantages and disadvantages of male circumcision and they determined that there were benefits (Lukobo & Bailey, 2007). Additionally, De Cock et al., (2012) demonstrated that Ugandan women were not aware about medical male circumcision and reported that they would not circumcise their sons. A study in Zimbabwe noted some of the factors preventing men and women to take their sons for circumcision included disbelief that male circumcision protects against HIV, cultural issues and fear of pain and/or adverse effects (Mavhu et al., 2011).

2.3.2 Acceptability of male circumcision

Studies conducted in Sub-Saharan Africa suggest that male circumcision acceptability is most likely to be influenced by social, cultural, and religious beliefs about male circumcision, and the perceived health and/ or social risks and benefits of the procedure (Albert et al., 2011). According to Westercamp and Bailey (2007), male circumcision has a significant impact on reducing the spread of the HIV epidemic in Sub-Saharan Africa. This reduction can only be achieved if it is widely accepted. A quantitative assessment of the acceptability of male circumcision indicated that the willingness of uncircumcised men to undergo circumcision

were over 50% in most countries (Westercamp & Bailey, 2007). In addition, Swaziland (87%) had the majority of uncircumcised men who were willing to be circumcised to prevent contracting HIV. A growing body of evidence suggested that male circumcision was associated with a reduced risk of HIV infection in Africa, especially in countries at high risk of HIV infections (Lagarde et al., 2003; Weiss, Quigley & Hayes, 2000). In Zambia, it was found that most male participants would consider circumcision because they believed that it reduces their risk of contracting sexually transmitted infection (STIs), including HIV (Lukobo & Bailey, 2007). Additionally, the study also found that the majority of female participants linked the hygiene of their partners' penis with their own chances of contracting an STI.

A large majority of men supported and accepted male circumcision for their son(s) and were in favour of the integration of male circumcision as one of the HIV prevention methods into HIV counselling and testing (Peltzer, 2013). In another study in Lesotho, Moabi and Mavundla (2018) reported that there was a clear positive connection between male circumcision and HIV acquisition in Lesotho, as this medical procedure reduced the chances of new HIV infections. Other studies indicated the willingness of men to have their sons circumcised, whereby 86% male participants in Kampala reported this (Albert et al., 2011). This was consistent with findings from Westercamp and Bailey (2007), in countries such as Botswana, Kenya, South Africa and Swaziland, where men and women were asked about circumcision for their sons and approximately 75% of parents sought circumcision for their son when it was safe, affordable and shown to be protective against HIV and STIs. The results from another study suggest that male infant circumcision was considered highly acceptable to mothers in southeastern Botswana, in the study, 92% of women interviewed reported that protection from HIV and other infections appeared to be a major motivating factor and they would accept circumcision for their newborn sons when it is performed in a clinical setting by a trained doctor (Plank et al., 2010). Additionally, a study by Kebaabetswe et al. (2003) found that although the majority of males in Botswana were not circumcised, 68% of participants responded that they would circumcise their male child if circumcision services are offered for free in the hospitals.

Findings by Peltzer and Mlambo (2012) found high rates of acceptability of male circumcision among participants between the ages of 18 and 24 years living in South Africa. The study found that knowledge of the protective effect of male circumcision against HIV

was associated with the acceptability of male circumcision. This can also be used to increase awareness of the benefits of male circumcision for HIV prevention (Peltzer and Mlambo, 2012). Sithole et al. (2009) revealed rich traditional understandings of male circumcision in South Africa with participants emphasizing that male circumcision helped to prevent HIV transmission and avoid sensitivity and pain during sexual intercourse (Sithole et al., 2012). In another study in South Africa by Simbayi, Peltzer and Onoya (2011), it was found that male circumcision was on the increase. This increase was noteworthy when compared to the results from 2002 by Connolly et al. (2008) whereby acceptability of male circumcision was moderately high.

2.4 Promoting factors of male circumcision

According to the World Health Organisation (WHO, 2017), circumcised men have a significantly lower risks of becoming infected with HIV and other STIs. In Sub-Saharan Africa, there has been an increasing demand for male circumcision and more men are becoming more accepting of this medical procedure because it maintains genital hygiene and prevents female-to-male HIV transmission (Albert et al., 2011; Siegfried et al., 2009). This section presents the promoting factors that are associated with the uptake of male circumcision as elaborated by other studies. These factors include the drastic reduction of new HIV infections and other sexual transmitted diseases, sexual satisfaction and performance, hygiene, as well as family, friends and community involvement.

2.4.1 Reduction in HIV prevalence and STI infection

Herman-Roloff et al. (2011) found that the primary facilitators of male circumcision included protection against HIV and other STIs, and maintaining genital hygiene. In most settings in Sub-Saharan Africa with high or moderate HIV prevalence among the general population, adult male circumcision is likely to be a cost-effective HIV prevention strategy (Kahn, Marseille & Auvert, 2006). Annually, almost 2.5 million people (mainly in Sub-Saharan Africa) become infected with HIV, the virus that causes AIDS. To date, there is no cure for HIV/AIDS. As a result, there is a heavy emphasis on the prevention of HIV transmission. The major route of HIV transmission is through unprotected sex with an infected partner, there are a number of strategies individuals can use to reduce their risk of HIV infection including

abstinence, reduction in partners, and use of male or female condoms. There is also convincing evidence that voluntary medical male circumcision (VMMC) reduces the heterosexual transmission of HIV in men by approximately 60% (Njeuhmeli et al., 2011). Male circumcision has been regarded as a preventative measure against HIV and other sexually transmitted diseases (Weiss, 2007).

A growing body of evidence suggests that male circumcision is associated with a reduced risk of HIV infection in Africa (Lagarde et al., 2003). According to Bonner (2001), in high-risk populations in Sub-Saharan Africa male circumcision was associated with reduced risks of HIV infection. Further, over 40 observational studies and three RCTs established that male circumcision reduces the risk of the HIV Type-1 acquisition in heterosexual men by approximately 60% (Herman-Roloff, 2011). In most of these studies, it was clear that the primary reasons as to why men chose to undergo male circumcision was to enhance protection from HIV and STIs (Bailey et al., 2002; Bonner, 2001; Westercamp & Bailey, 2007). Men in Zimbabwe reported that they would undergo male circumcision because of the perceptions that it reduces the risk of HIV transmission, including STIs (Mavhu et al., 2011).

Estimates from a variety of RCTs among HIV-negative African men indicated reductions of in HIV incidence in circumcised male participants compared with those who were uncircumcised from South Africa, Kenya and Uganda (Auvert et al., 2005; Bailey et al., 2007; Gray et al., 2007). In addition, men in Kenya and Uganda who underwent extended follow ups for more than 5 years exhibited sustained reductions in HIV incidence of 64% in Kenya and 73% in Uganda. It was then clear that there was a causal link between male circumcision and lower susceptibility to HIV infection. Given the findings from these RCTs and other observational studies, the World Health Organization (WHO) and the Joint United Nations Programme on HIV/AIDS (UNAIDS) recommended male circumcision in Sub-Saharan Africa as a preventive strategy for reducing the spread of HIV infections (WHO, 2007).

The risk reduction among couples was also identified as one of the most prominent facilitators of male circumcision. Research on male circumcision revealed that this procedure reduces men's risk of becoming infected through sexual intercourse (Dyke & Mathew, 2017). The results of RCTs have shown reductions in female to male transmission of HIV by approximately 60% during vaginal intercourse, it was also revealed that this has a direct benefit for women, including reducing the risk of STIs, cervical cancer, and possibly HIV

(Riess, Achieng & Bailey, 2014). A study in Uganda suggested that male circumcision was significantly associated with reduced HIV acquisition, and it found that in discordant couples with HIV-negative men, no seroconversions occurred in 50 circumcised men (Gray et al., 2000).

2.4.2 Improved sexual satisfaction

The influence of male circumcision on sexual pleasure and performance has increased the uptake of male circumcision among uncircumcised men, as different studies show that most respondents reported improved sexual satisfaction and enhanced sexual performance (Herman-Roloff et al., 2011). According to Fleming et al. (2017), a post male circumcision survey revealed that men felt more masculine, as they reported that they had experienced stronger erections after circumcision and an increased ability to satisfy their female partners. Some case control studies have reported reduced sexual sensation, masturbatory pleasure, and sexual enjoyment among circumcised men compared to uncircumcised men (Kim and Pang, 2007). In a study that was conducted in Kenya among recently circumcised, it was reported that they were able to have prolonged sexual encounters and they were able to use condoms more easily (Riess et al., 2010). Additionally, male sexual pleasure has also been given as a primary reason for male circumcision in countries such as Kenya and Nigeria (Magoha, 1999).

In a study in Uganda, male circumcision was also perceived to increase men's sex drive and women's sexual pleasure (Albert et al., 2011). The perception that medical male circumcision enhances the sexual performance for both men and their partners has influenced more uncircumcised men to undergo male circumcision. Most studies conducted in Sub-Saharan Africa and globally have shown that male circumcision enhances men's sexuality and sexual performance (WHO, 2007). Additionally, men who are in relationships with women, either girlfriends or spouses have been mostly influenced by their partners to undergo male circumcision, with perceptions that this has a positive impact in men satisfying their partners during sex (Krieger et al., 2008; Herman-Roloff et al., 2011). According to Herman-Roloff et al. (2011), there was a positive association between male circumcision and female sexual satisfaction. It was found that women find circumcised men more sexually satisfying and some believed that male circumcision also encourages faithfulness if the female partners of circumcised men are more sexually satisfied (Herman-Roloff et al., 2011). This was also

noted in Uganda, whereby the majority of women felt that male circumcision increased sexual desire and pleasure for both partners. This was a result of easy penetration and improved sexual prowess with prolonged and more frequent sexual encounters (Nakyanjo et al., 2019).

A study conducted in South Africa among high school adolescent boys over the age of 16 years, revealed a strong perception that male circumcision enhances sexual pleasure and performance (for both males and females), and this appeared to be a strong motivator for these adolescent boys to undergo the medical procedure (George et al., 2014). Another study in South Africa showed that 50% of circumcised men and 30% of uncircumcised men believed that circumcision enhances sexual performance (Westercamp & Bailey, 2007). Scott, Weiss and Viljoen (2005) argued that in South Africa, the only reason given by older men for choosing to undergo male circumcision was to give a woman more sexual pleasure; while the younger men cited protection from STIs, pain during sex and sexual satisfaction.

2.4.3 Improved genital hygiene

The improvement in genital hygiene is important worldwide, and this has been recognised in both traditional and non-traditional circumcision methods (Westercamp & Bailey, 2007). According to Herman-Roloff (2011), it was clear that another primary facilitator of male circumcision uptake included genital hygiene, as the foreskin carries a lot of dirt in a penis. A study by Lukobo and Bailey (2007) showed that male and female adults equate male circumcision with improved genital hygiene and that through better genital hygiene, reductions in HIV infections are achieved. A study conducted in Rwanda found that one of the reasons men were willing to be circumcised was to improve and maintain their genital hygiene to reduce their chances of contracting STIs, including HIV (Gasasira et al., 2012). A study in Kenya among older men found that perceptions of increased hygiene was one of the facilitators to uptake male circumcision (Macintyre et al., 2014). Research shows that the presence of the foreskin increases the chances of microbial growth (Gasasira et al., 2012). In addition, some men had an understanding that the foreskin harbours dirt and this dirt can build up at any time even after bathing, as the white substance called *smegma* is found under the foreskin is composed of epithelial cells and sebum, which are produced by the sebaceous glands (Murtaza, 2015).

Another study that was undertaken in Uganda found that uncircumcised men were willing to undergo male circumcision as they emphasized positive health benefits of doing so which includes increased hygiene (Albert et al., 2011). Additionally, more than 90% of health care providers stated that male circumcision improves hygiene (Albert et al., 2011). Peltzer (2013) and Macintyre et al. (2014) both argued that men carry more dirt after engaging in sexual intercourse, mostly under their foreskin if uncircumcised, and therefore undergoing male circumcision greatly improves penile hygiene. Ngalande et al. (2006) states that circumcised men find it very easy to maintain penile hygiene, and this has been proved to be a major key in the acceptability of male circumcision for women in Kenya in order to persuade their partners to undergo this medical procedure (Bailey et al., 2002). Additionally, both females and males stated circumcised men easily maintain cleanliness of their penis and this reduces any risk to contract any STIs, including HIV (Ngalande et al., 2006). A study in South Africa found that the most commonly reported health benefit of male circumcision was the perception of improved genital hygiene (Hoffman et al., 2015).

2.4.4 Family, friends and community involvement

Parental, community and peer involvement has played an influential role in the decision to circumcise. A study in South Africa by Peltzer et al. (2008) found that the decision for undergoing male circumcision was primarily influenced by the participant's family and parents (73%); themselves (64%); by the community (62%) and peers (26%). The influence of peers, partners and family plays an important role in boys' decision to undergo male circumcision (George et al., 2014). In Uganda, most males who underwent male circumcision reported that their parents had an influential role in their decision to uptake and seek male circumcision (Amulen, 2018). "Parents, as the custodians of tradition and culture, can play an influential role in boys' decisions to undergo voluntary medical male circumcision" (George et al., 2014, p.183). In a study by Tobian et al (2009), a young man emphasized that his father was the main influencer for him to undergo male circumcision because they did it together (Tobian et al., 2009). Parental involvement has even helped older men, as they would seek advice from their parents who have undergone circumcision or who have better knowledge about this medical procedure. This was clear in a recent study that was conducted in Tanzania, where Amuri et al. (2016) stated that parent-child communication about circumcision in families has had a great influence among younger boys, as in most instances

when the father is circumcised, younger men were likely to follow in the footsteps of their fathers and seek medical circumcision.

Studies also show that the community at large plays a significant role in the uptake of male circumcision, especially when community outreach initiatives would reach different areas to teach them about the benefits of male circumcision in terms of HIV prevention (Kaufman et al., 2016). Consistent with the findings of a study by Hatzold et al. (2014), it was found that community support was a promoting factor which influenced young males to support male circumcision (Kaufman et al., 2016). According to Kaufman et al. (2016), the community support and acceptability of sexual and reproductive health has had a great influence in health services and efforts in improving sexual behaviours of adolescents. In a study from South Africa, male adolescents reported valuing the information they received from interpersonal interactions with mobilizers and health providers (George et al., 2014).

Peer involvement or 'peer pressure' has also been reported as one of the promoting factors of male circumcision. If a group of friends or peers were already circumcised or deciding to undergo male circumcision, this likely encourages other males to do so (Tommbe et al., 2012). In a university setting in New Guinea, it was reported that male students were likely to be convinced and influenced by their friends to undergo male circumcision (Tommbe et al., 2012). In most communities, some men get circumcised in order to be fully accepted and respected (Sarvestani et al., 2012). Ng'uono (2016) also reported that peer pressure was an important factor in influencing men's decision to undergo male circumcision. In a South African study, males stated that one of the main reasons they opted to seek and undergo male circumcision was as a result of pressure from friends, and they did not regret taking the decision because it would be beneficial (Mavundla et al., 2010).

2.5 Inhibiting factors of male circumcision

While there is an array of promoting factors that have an influence on the decision to circumcise, studies have shown that there are also barriers or inhibiting factors towards this medical procedure (George et al., 2014; Turner et al., 2007). According to Wouabe and Brown (2013), the most common barriers includes fear of pain during and after the surgery, the costs associated with the procedure, concerns about adverse events or complications relating to surgery, threats to masculinity such as the loss of penile sensitivity or penis size,

concerns about sexual performance, sexual inactivity and religion. This section discusses the following inhibiting factors: pain and adverse events, culture and religion and structural factors such as cost and affordability.

2.5.1 Pain and adverse events

Research shows that traditional and medical male circumcision is painful for men, and the prospect of experiencing pain is often an inhibitory factor to undergoing male circumcision (George et al., 2014). Traditionally, circumcision was meant to be painful since withstanding pain was a sign of manhood and masculinity. The experience of pain was an important aspect of traditional male circumcision, as this carries a significant symbolic meaning (Mshana et al., 2011). Male circumcision initiates are expected to demonstrate the ability to withstand the pain that is framed as a demonstration of bravery and courage; which is an important attribute of male adulthood among the Kurya in Tanzania (Mshana et al., 2011). A study in South Africa among Xhosa men in Cape Town found a strong cultural preference for traditional circumcision, with almost all men (89%) agreeing that a 'man is not a man until he has been to the mountain/bush' (Maughan-Brown et al., 2011).

As a rite of passage towards becoming a man, enduring the pain of male circumcision was often seen as being an integral aspect of the traditional circumcision (Peltzer et al., 2008). On the other hand, the fear of pain was seen as a legitimate reason among men to avoid male circumcision among those who were not required culturally to do so (Ngalande et al., 2006). According to Ploktin et al. (2013), both young and old men in Tanzania were fully supportive of male circumcision as a prevention strategy for HIV, however; the healing process was reported to be the main issue because of the time taken for them to stay home and heal after the procedure.

Studies have reported that circumcised men experienced unbearable pain after medical male circumcision (George et al., 2014; Herman-Roloff et al., 2011; Ngalande et al., 2006). Adverse events related to male circumcision have been defined as any injuries, harm, or undesired outcomes occurring during or following male circumcision that would not have occurred if the client had not undergone the medical procedure (Hinkle et al., 2018). Circumcised men in South Africa reported adverse events such as bleeding, stitches coming out and excessive pain, especially during erections (George et al., 2014). A study conducted in Tanzania revealed that men experienced fear of penile injury from erections in the post-

operative period thus emerging as a barrier to uptake and seek for male circumcision. (Plotkin et al., 2013). Additionally, these men feared that stiches from the procedure would rupture before the healing time and this could easily lead to more excessive pain and delay in healing (Plotkin et al., 2013).

According to Scott, Weiss and Viljoen (2005), the most frequently cited reason for a man choosing not to circumcise either himself or his son was a fear of pain and even death as a result of the medical procedure. In another study by Lagarde et al. (2003) 43% of circumcised men described the traditional procedure as 'very painful', 34% as 'mildly painful', and 19% as 'not painful' (Lagarde et al., 2003). In a South African study, one participant cited that he would prefer medical male circumcision because the health facilities offer better pain management procedures that helps to ease the post-operation pain, while in the traditional procedure, this is not offered (George et al., 2014). Further, while some respondents indicated a perceived association between male circumcision and ideas about masculinity, many still feared the prospect of potential pain (George et al., 2014). In another study in South Africa, about 81% of respondents reported that they expect male circumcision to be painful (Peltzer et al., 2008).

There is a low acceptability of male circumcision as a result of some uncertainty with regard to pain post-circumcision (Ngalande et al., 2006). Studies conducted in Malawi, Tanzania and Zambia stated that both parents and younger men prefer being circumcised by health professionals rather than using traditional methods as they fear that there is greater pain and this procedure is usually conducted in unsanitary conditions (Ngalande et al., 2006; Tobian, Kacker & Quinn, 2014). In Uganda, most uncircumcised men feared the negative side effects (also associated with pain) such as contracting tetanus and malfunction, haemorrhage and death because the facilities provided by the government were not in good condition (Kibira, 2017). In another study in Uganda, one woman described how she convinced her husband to get circumcised, however, his uncircumcised friends discouraged him by saying that he would get sepsis or experience pain if he were to undergo male circumcision (Nakyanjo et al., 2019). Additionally, another study found that many participants, both with circumcised and uncircumcised partners, said that fear of pain was a major reason that their partners had a low acceptability of male circumcision (Nakyanjo et al., 2019).

Studies have shown that traditional male circumcision has been associated with high rates of complications and adverse events such as bleeding, swelling, infection and damage to the

penis (Bochner et al., 2017; Peltzer et al., 2008; Vincent, 2008). Additionally, such practices have predisposed initiates to serious health complications. According to Mavundla et al. (2010), in the areas where Xhosa male circumcision is practiced, there were reports of botched male circumcision and hospital admissions due to various complications ranging from poorly performed operations to gangrenous penises, as a result of infection. Estimates from another study in South Africa indicated that 47.6% of men circumcised in traditional settings reported complications such as bleeding, penile injury and local infections (Lagarde et al., 2003).

2.5.2 Culture and religion

The practice of male circumcision is hindered by cultural and religious beliefs, which remains a major barrier towards the acceptance of male circumcision in many parts of Sub-Saharan Africa (Downs et al., 2013; Downs et al., 2017). According to Herman-Roloff (2011), older men in Kenya talked about religion in the sense that if a man is "saved" then he will not be promiscuous, and as a consequence, he will not need to undergo male circumcision to protect him against HIV. According to Mark et al. (2012), most frequently reported reasons for unwillingness to undergo male circumcision included religious and cultural reasons. Most uncircumcised men who were Catholics and Muslims perceived the removal of the foreskin as a sin and not acceptable within their religion (Keetile & Bowelo, 2016). Another study conducted in Swaziland revealed that religious barriers towards the uptake of circumcision were biblical, and associated with Christianity (Maibvise & Mavunda, 2014). Further, the biblical perspective showed that the reason some men did not want to be circumcised was their belief that male circumcision is against the Christian doctrine which emphasizes that if God created one with a foreskin, removing it was perceived as a sin (Maibvise & Mavundla, 2014). Whilst in the African traditional religion, Swaziland customs and values set circumcision as an unacceptable practice (Maibvise & Mavundla, 2014).

In Zambia, one of the main barriers of male circumcision was cultural traditions. This procedure was not culturally supported in non-circumcising districts and it resulted in stigma and rejection by family, friends and women (Lukobo & Bailey, 2007). Many uncircumcised men have been inhibited to undergo the traditional procedure because of the fear that they might die from the process (Lukobo & Bailey, 2007). In a study by Herman-Roloff et al. (2011), culture and religion was also reported as one of the barriers of male circumcision.

Additionally, young participants viewed male circumcision as a medical intervention that exists outside of culture (Herman-Roloff et al., 2011). The study also elaborated that young men discussed the health benefits afforded by male circumcision and many still believed that getting the approval of elder males in their family was essential if one wished to be circumcised. The consequences resulting from an unapproved circumcision could include being estranged from family, being forced to move off family land, and even dying, hence hindering men from undergoing circumcision (Herman-Roloff et al., 2011). Moreover, participants also cited that the elders did not approve of medical male circumcision as they believed it was against their culture and tradition. Others also reported that they believed that it would be a sin to get circumcised since male circumcision would change God's creation (Herman-Roloff et al., 2011).

2.5.3 Structural barriers

Another challenge preventing men from seeking medical MC are structural factors, such as cost and distance. Often those who want to undergo male circumcision come from rural areas and they are forced to travel long distances in order to get to clinics or hospitals that offer medical MC (WHO, 2017). According to Kebaabetswe et al. (2003), most parents in Botswana stated that if the procedure was free and offered in better hospitals and clinics, they would bring their male sons for circumcision. Additionally, in South Africa the cost of male circumcision was also regarded as a barrier for men to undergo male circumcision (WHO, 2007).

In most African countries, the distance to access male circumcision facilities have been an issue, presenting itself as an inhibitor towards circumcision (Smelyanskaya, 2015). A study in Botswana revealed that the majority of men were usually available during times that did not correspond with the operational times of a clinic and due to time constraints most working men would not be able to seek services for male circumcision (Smelyanskaya, 2015). Consistent with other studies that were conducted in Kenya and Botswana, men believed that taking time off from work and having to travel long distances was a major barrier for employed, young men (Kaufman et al., 2016). A study in South Africa also reported that male adolescents were less likely to accept medical MC due to the structural factors, as they complained about the long waiting hours that one has to endure when they wanted to access a health facility. They also reported the lack of professionalism by health providers as a

hindrance towards male circumcision (Tobian et al., 2015). Consistent with a study among healthcare workers in South Africa, it was clear that health providers had negative perceptions and experiences regarding the implementation of medical MC, owing to poor preparation and training (Nxumalo & Mchunu, 2020). Furthermore, it was found that health providers reported experiences of poor preparation and little formal training for the role they had to play in the implementation of medical MC (Nxumalo & Mchunu, 2020). This served as a challenge towards effectively conducting male circumcision.

Other studies have reported that some participants were concerned with the costs of the medical procedure, and this was noted to prevent uncircumcised men from undergoing circumcision (Bailey et al 2002; Lagarde et al., 2003). Male circumcision takes up to six weeks for the healing process and after performing this medical procedure, men reported that they find it difficult to do chores and commence with their daily jobs. This results in the loss of income. In a study in Tanzania, participants reported concerns of losing income and not getting paid due to the post-operative pains caused by the circumcision procedure (Carpenter & Casper, 2009). Further, this was viewed as a limiting factor to perform and undergo medical MC in Tanzania. Consistent with a study in Uganda among young men, it was found that the majority of these men were worried about spending weeks or months without going to work. Additionally, this was widespread and common among the youth who worked in the informal sector because they depended on their daily earnings (Kripke et al., 2016).

2.6 Summary

The purpose of this chapter was to review national and international literature pertaining to male circumcision. The reported studies in this literature review are mainly from Africa, specifically in the Sub-Saharan African context, where there is a high prevalence of HIV. Emphasis on this region is important given the disproportionate burden of HIV. It was clear that success in HIV prevention in Sub-Saharan Africa was achieved through medical male circumcision and has had a significant impact towards reducing new HIV infections. This presents itself as an important contributor towards the uptake of male circumcision. Knowledge, awareness of male circumcision is widespread and promotes the acceptability of circumcision globally. Factors such as HIV prevention and hygiene are influential factors of male circumcision. However, there are also an array of inhibitors such as pain, culture and religion as well as other structural limitations; largely inclusive of distance and cost.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the methodological approach that was adopted in this study. The aim of the study was to investigate the implications of voluntary medical MC for HIV prevention among students at the University of KwaZulu-Natal, Howard College campus. The beginning of the chapter gives an outline of the study context. It then details the research design of the study, the data collection procedures, methods of data analysis and ethical considerations. The chapter ends with a discussion of the limitations of the study.

3.2 Study setting

In 2009, medical MC was introduced in KwaZulu-Natal as a HIV prevention strategy (KZN Health, 2018). The King of AmaZulu Goodwill Zwelithini rallied for medical MC to be adopted (KZN Health, 2018). Dr Sibongiseni Dhlomo, the MEC for KZN Health, highlights that one million men have been circumcised in KwaZulu-Natal since 2009 (KZN Health, 2018).

It is imperative to reach young people to win the fight against HIV/AIDS, especially at tertiary level as there is a higher chance of them having multiple sexual partners (KZN Health, 2013). In addition, there is a need to encourage young men to adopt healthy lifestyles (KZN Health, 2013). On the 11th April 2013, the University of KwaZulu-Natal HIV and Wellness Programme partnered with the KwaZulu-Natal Department of Health in a medical male circumcision and Men's Forum launch whereby Dr Dhlomo promoted medical MC to male students to reduce their risk of HIV infection. This initiative is a step forward and this current study aims to contribute in raising awareness of medical MC among young males in the efforts to reduce HIV/AIDS.

This study was conducted at the University of KwaZulu-Natal (UKZN), Howard College campus situated in the province of KwaZulu-Natal (KZN) in South Africa Durban. The University of Kwa-Zulu Natal is situated in an urban area. The university has diversity in terms of its racial profile and is composed of different race groups such as Blacks, Whites, Indians, and Coloureds. A disproportionate number of students at the university are Black. The main reason for conducting the study at the University of KwaZulu-Natal is because it is situated in KZN, the province with the highest prevalence of HIV in South Africa with a rate

of 25.8 percent (Statistics South Africa, 2018). Figure 3.1 and 3.2 shows the location of the University of KwaZulu-Natal. The University of KwaZulu-Natal has five campuses with Howard College Campus having the largest enrolment of 14 271 students (UKZN, 2013).

Figure 3.1: Map of University of KwaZulu-Natal (Howard College Campus)

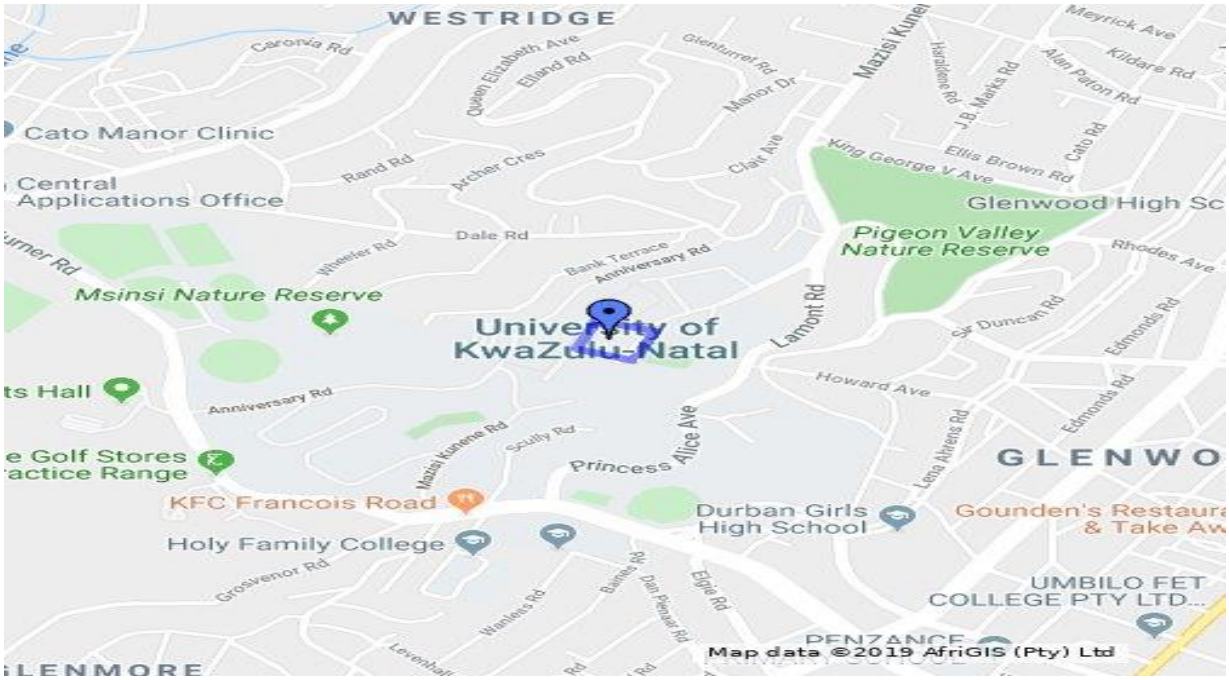
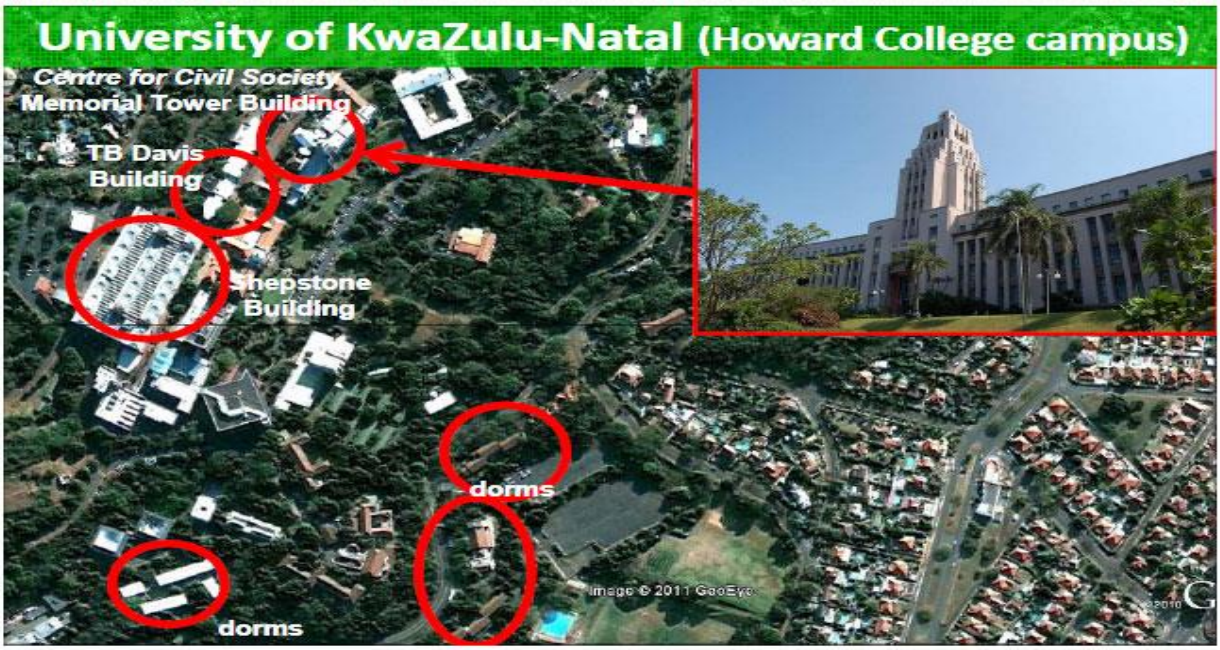


Figure 3.2: Howard College Campus



Source: Google maps (2018)

3.3 Research design

The study adopted a qualitative research approach as the most valuable approach to be used to gather relevant information, which will be helpful in responding to the research question. Qualitative research mostly uses observations and interviews to ensure that the views of the participants are not restricted (Bless, Higson-Smith and Sithole, 2013). Therefore, it was felt that this approach will enable participants of this study to intelligibly offer their perceptions of male circumcision as a prevention strategy for HIV. The purpose of using this method was not to generalize the findings from the population, however, it seeks to go deeper to understand the main source of the problem being investigated. Hence, if one has to go deep about this issue with participants there would be a possibility to identify the root causes of the problem and establish the solutions to address it.

According to Jack (2006) qualitative research can be effective in addressing the gaps in people's understanding of a problem and it provides a different perspective on a situation. Qualitative research is relevant for this study because the aim of the study is to investigate the perspectives of male circumcision as an HIV strategy among students and this cannot be captured using quantitative methods. Additionally, there are limited studies focusing on promoting and inhibiting factors for uptake of male circumcision among University students. The qualitative approach makes it easier for people who are not researchers to understand (Baum, 1995). The benefits of using a qualitative research can have a positive influence in program evaluation through identifying the inhibiting factors, promoting factors and permitting the decision makers to point out factors that have a negative or positive influence in the program success and failure.

The researcher conducted 15 in-depth interviews in order to better understand attitudes to MC. The use of qualitative methods allowed the researcher to understand perspectives and the experiences of the individuals in depth, to gain more powerful knowledge and insight. According to Boyce and Neale, (2006), one of the advantages of in-depth interviews is that they offer an atmosphere which is more relaxed, making individuals feel more comfortable during the interviews as opposed to filling in a survey. In-depth interviews are appropriate for this study; however, they have limitations such as being very time-consuming. Boyce and Neale (2006) interviews can be very time-consuming because of time taken when conducting interviews, transcribing them and analysing the results.

3.4 Sampling

The sampling method chosen for this study is non-probability sampling which made use of purposive and snowball sampling. Purposive sampling entails choosing a sample based on demographic characteristics (Bricki and Green, 2007). While snowball sampling is a method whereby already recruited participants (identified from purposive sampling) refer future participants that meets the required demographic characteristic. Purposive sampling method is where the researcher deliberately selects informants based on his or her judgment (Creswell and Poth, 2016).

The size of the sample consisted of 15 male participants. The study used purposive sampling, because specific demographic characteristics were required for the sample. Purposive sampling focuses on selecting participants who are useful in the study (Bricki and Green, 2007). The characteristics required of the respondents for the study are local citizens of South Africa and fully registered males at the University of KwaZulu-Natal. The study is enriching as it helps in understanding the current mind-set of a sample of male students in South Africa concerning their attitudes towards male circumcision. The selection of the participants for the purposive recruitment process depended on the availability of university male students in various areas at the university such as the campus libraries, food cafeterias and parking lots. The researcher conducted the interviews with all the participants in the study that were willing to partake in the study. The interviews were fully completed by the male participants, sharing their perspectives of male circumcision with the researcher.

Snowball sampling was also used by the researcher to ask participants to identify other participants who met the criteria (Bricki and Green, 2007). Snowball sampling is effective when there is a small facilitated the identification of more participants (Bricki and Green, 2007). Using snowballing facilitated the researcher in acquiring more participants faster. In explaining the process of how the snowball sampling was facilitated, Participant 5 referred the researcher to another participant from Umlazi (Participant 14), as they both knew each other from home and were circumcised around the same time when male circumcision was rolled out in certain areas in KwaZulu-Natal. A few participants who are of Xhosa ethnicity, especially those from Gauteng referred each other to this study and were willing to provide their insights on this topic.

3.5 Data Collection

In qualitative research, the data collection and the generation are an important factor that allows participants to share any experiences to allow for better understanding of the phenomenon under study (Bricki and Green, 2007). The researcher approached male students at the university and informed them about the purpose of the study. Only students that were willing to participate in the study were interviewed. The students were approached in parking spaces, libraries and food courts. The participants encouraged other students to participate as they stated that the research was useful and seemed interesting. The researcher used in-depth interviews with a total of 15 male participants, the interviews took a maximum of thirty minutes to be completed. The recordings from the interviews were transcribed in order for thematic analysis to take place.

The researcher employed semi structured, in-depth interviews, therefore the researcher was able to ask more opened questions allowing the participants to engage in discussion. Bricki and Green (2007) argued that interviews facilitate a guided conversation for understanding the social realities and the experiences of the respondents to provide the data to respond to the research objectives. Semi-structured interviews include open-ended questions conducted one-on-one between the respondent and the researcher (Bricki and Green, 2007). The researcher permitted the participants space and time to discuss any experiences and the factors that influence their decision making in undergoing MC.

All the interviews were digitally recorded and at the same, notes were taken by the researcher. The use of a digital recorder permitted the discussion to be transcribed. The permission to have interviews recorded was stated in the informed consent forms that the participants were provided with before the interviews began. The researcher verbally explained everything, which was written, on the form. The interviews took place in different venues (car parks and outside the food court) within Howard College campus. There were vacant rooms that the researcher used to conduct the interviews and researcher ensured that all names and other identifying information was kept confidential. The audio-recorded interviews were usually transcribed within 24 hours.

3.6 Data analysis

The method used to analyse data was the thematic analysis. Thematic analysis is a method used in analysing qualitative data (Bricki and Green, 2007). This method entails the researcher closely examining interview transcripts (Caulfield, 2019). According to Bricki and Green (2007) thematic analysis looks across the data to identify recurring common issues and grouping them into main themes in all the views collected. The researcher carefully read the transcripts cautiously and observed themes. After the themes were identified, each theme was given a coding colour. After coding all the data, extracts were taken from the original transcripts and categorised with other data with the corresponding colour code. The subthemes were grouped under themes which were initials using the exact colour coding procedure. Therefore, when all codes were categorised, the issues and patterns under every theme created the basis for what is known as the thematic analysis. Thematic analysis was useful as it helped identify the similarities in the responses given by the participants. Additionally, it gave the researcher insights into the general perspectives of male students towards medical MC.

3.7 Ethical considerations

This research was conducted in accordance with the University of KwaZulu-Natal's Research Framework and Guidelines with focus on the guidelines for conducting research with participants. The ethical application forms were submitted to the Humanities and Social Sciences Research Ethics Committee (HSSREC) at the University of KwaZulu-Natal. Ethical Clearance approval number (HSS/0486/018M) was obtained on the 17th May 2018. Moreover, a gatekeeper's letter from the university's registrar was obtained to allow the researcher to interview students on campus.

All participants were given an informed consent form prior to the interview. This consent form was concise stating the objectives of the study and requesting the participants' permission to have their interviews audio-recorded. The consent form allows the participants to opt out from the study at any stage. Both the researcher and the participant signed the form but to protect the participants the researcher asked them not to write their names on the forms. The ethics of the research is concerned about making sure that the researcher of the study respects the privacy of the participants and the risks do not outweigh the benefits of the

research. The interview recordings are stored in the supervisor office to ensure the confidentiality of the information. The study results are also stored in the researcher's personal laptop that has numerous security codes only known by the researcher. In addition, the findings in the interviews will be written in a report but the names of participants will not appear.

3.8 Limitations of the study

Some of the male students did not want to partake in the interviews and the reason being they were not comfortable in engaging in topics relating to circumcision. The participants might have not responded to the interviews in an honest way because male circumcision is a sensitive topic to talk about. A major limitation of this study is that the data collected represented the views of a sample of students at the University of KwaZulu-Natal and therefore, does not represent all students in the University. In addition, the majority of males at UKZN are from the Zulu ethnic group, where traditional male circumcision does not occur. Perhaps, if the study was replicated in another university where the male student population are mainly from an ethnic group that practices TMC, this could have influenced their perceptions of medical circumcision. Uncircumcised students may find it uncomfortable talking about circumcision. The maximum time taken for the interviews was around 30 minutes.

3.9 Summary

This chapter has discussed the methods that are relevant to the study. The study employed qualitative methodology and used non-probability sampling techniques of purposive and snowball sampling to identify suitable participants. In-depth interviews were viewed as appropriate for a study aimed at collecting descriptive data of the experiences and awareness of students. The study was conducted ethically as all the protocols of the university was observed and utmost care was taken to ensure the participants understand the purpose of the study and consented to it. Additionally, their identities have remained anonymous. Finally, the chapter discusses that the data that was analysed thematically.

CHAPTER FOUR: FINDINGS

4.1 Introduction

The purpose of this chapter is to discuss the major findings from the interviews. The purpose of this study was to identify the factors that promote and inhibit male circumcision as a prevention strategy for HIV. The chapter starts by outlining the background characteristics of the university students who were interviewed for the study. It thereafter outlines awareness of MC as a HIV prevention strategy. Finally, it explores the factors that influence the decision to circumcise.

4.2 Profile of participants

In total, 15 interviews were conducted with university students at the Howard College Campus in Durban. All the students were registered at the University of KwaZulu-Natal at the time of the interviews. The age of the men ranged from 18 to 28 years. All the participants were black South Africans. Of all the students interviewed, ten were born in KwaZulu-Natal and were of the Zulu ethnic group. The remaining five were originally from Gauteng and Eastern Cape, and belonged to the Xhosa and Coloured ethnic groups.

Table 4.1: The profile of the participants

	Age	**Ethnic group**	**Original place of birth**
Participant 1	19	Zulu	Umlazi
Participant 2	22	Xhosa	Pretoria
Participant 3	27	Coloured	Zola 3
Participant 4	25	Zulu	Phoenix
Participant 5	24	Zulu	Umlazi
Participant 6	26	Xhosa	eNanda
Participant 7	22	Zulu	Queensbury
Participant 8	23	Zulu	Pinetown
Participant 9	18	Zulu	KwaNyuswa
Participant 10	25	Zulu	Richards Bay
Participant 11	25	Xhosa	Tembisa
Participant 12	23	Zulu	Mhlanga
Participant 13	24	Zulu	eMpangeni
Participant 14	25	Zulu	Umlazi
Participant 15	21	Xhosa	Zone 14

4.3 Awareness of medical MC and traditional MC

Most of the participants had a general understanding of the purpose of MC and understood that there are some differences that exist between medical MC and traditional MC. Some participants highlighted that traditional circumcision is considered as an important rite of passage to manhood whereas medical circumcision does not hold any cultural significance. This is discussed in the following excerpt from participant 4:

> *"Most Zulu men do not see the need of going to do medical circumcision because the Xhosa people at times disrespect the people who go for medical MC and they see them not as being able to be called a man, they usually say you are going to the hospital and we go to mountains. I am also a Zulu man but I went to the mountain for traditional circumcision."* (Participant 4)

There is a high value that it is placed on traditional MC. In fact, it is seen as more popular than medical MC. Participant 2 reiterates this notion that traditional medical circumcision is so highly revered among some that men would forgo circumcision if their only option was medical MC.

> *"For my degree I studied at the University of Pretoria but I am originally from KwaZulu-Natal. I came to Howard for my Honours degree. My roommate at the time was a Xhosa guy, his friends used to visit him for sure they grew up together, they used to talk about how they would not go for medical circumcision and they would rather not perform circumcision that used to hit me hard because I was not much aware of TMC they made me regret for even going for medical MC. I even called my dad at that time and he told me that he also did traditional MC. During his time that was the only procedure they had so I should not get worried."* (Participant 2).

Nevertheless, some participants contend that the difference between traditional and medical circumcision is negligible and they emphasised that the importance is how safely the procedure is performed. The following excerpts illustrate this.

> *"Medical male circumcision and traditional male circumcision are the same to me, but I would go for medical as it is the safe one to perform. I do not hate or judge people who perform traditional circumcision as their culture allows them to perform it. I grew up in Durban and growing up there almost everyone I know did medical circumcision."* (Participant 10)

> *"I am a Zulu man and we as Zulus do not see anything wrong with performing both traditional and medical MC and more importantly I would do anything that is safe for me to do."* (Participant 7).

Additionally, participants emphasised the importance of respecting the culture. They explained that circumcision is not something new and traditional circumcision has been practised for many years making it difficult for males to choose medical circumcision. One participant argued that during the 19th century males were required to do traditional circumcision due to their culture. The introduction of medical MC has led to many debates

amongst men. Some believe that undergoing medical MC as a black African male is socially taboo. Traditional MC was introduced as part of the initiation process and a rite of passage from boyhood to manhood. During the initiation process men are taught valuable lessons that they do not receive if they just undergo medical circumcision. Participants had this to say:

> *"I grew up knowing that in my culture a real man is someone who has to go to the mountains and perform the circumcision there, I am not saying that men who go for medical MC you are not real men. The modern circumcision does not really give you that strong belief that one has moved from boyhood to manhood and received adequate teaching from the elders."* (Participant 5)

> *"For me traditional circumcision is the best circumcision because one is regarded as a real man when he comes back from the mountain. The certain things which are taught there by elderly people which are not being said at hospitals and clinics and I feel like every guy should go there for them to get the knowledge which was generated by our great grandfathers."* (Participant 8)

The growing changes that the world is encountering during the 21st century, the shift from traditional MC to medical MC in the modern days has resulted in the decrease in numbers of males who seek traditional ways of circumcising. Increasing males are opting for medical circumcision because they feel that traditional MC is less important than before. One of the participants highlighted the change in times and the decreased importance of maintaining the culture:

> *"The King Goodwill Zwelethini had stated that before there is not much importance of traditional circumcision amongst the Zulu men, since he pointed out that I did not see much need of going deep into understanding the importance of traditional circumcision, but all I know is that medical MC is the best because you are being helped by professionals."* (Participant 9)

Traditional MC does not involve the removal of the whole foreskin leaving the penis more vulnerable and there is a higher risk of getting STIs and contracting HIV. However, medical MC involves the removal of the whole foreskin leading to a reduction in the risk of I

infection with HIV and STIs. There is a recognition among the men that medical MC provides more protection against the risk of HIV infection.

> *"I would say traditional MC does not really remove all the foreskin in the penis as medical MC. I would rather not be circumcised if I had to do traditional MC, because that means the traditional MC is less protective than medical MC and there are still chances that I may get infected with HIV or catch STIs."* (Participant 7*)*

4.4 Promoting factors of medical MC

The interviews reveal that the male students are aware of several factors that promote medical MC. The majority of them were aware that male circumcision can play a role in lowering the risk of HIV infection. Additionally, many perceived the hygiene of the penis, enhanced sexual pleasure, partner's approval and government intervention as positive factors that promote medical circumcisions. These factors will be elaborated in the sections below.

4.4.1 Reduction of HIV/AIDS and other sexually transmitted infections

Most participants were aware that medical MC has protective benefits. They knew that MC results in a reduction in the risk of infection of HIV and AIDS. They also knew that it reduces the risk of contracting other sexually transmitted infections.

The participant's comment below highlights that some men are even aware of the research about medical MC reducing the risk of HIV infection by 60 percent.

> *"It reduces chances of getting HIV by 60 percent. And it is much safer during the sexual intercourse."* (Participant 11)

Many even advocated that uncircumcised males should undergo the procedure of medical circumcision to reduce their chances of becoming infected with HIV.

"All men should do it! It is a good thing for living healthy. You do not want to get diseases and die at a young age. So, I believe people should get circumcised to avoid HIV and STDs." (Participant 2)

"I woke this one time because I had slept with this girl that I met a few weeks ago and I had pimples on my penis, I woke up, took a bus to campus to the clinic to ask what was going on because I got a bit scared and worried. I did not want sores on my private parts. I was so scared that I checked my HIV status and I was negative. They gave me pills and the infection was gone as soon as the nurses there advised me to go for circumcision I did it after a week and they had booked for me since than I have never experienced the infection I had 3 years ago." (Participant 4).

Additionally, some argued that males should undergo circumcision before becoming sexually active as that would lower their risk of HIV infection. Men are very aware of the health benefits of male circumcision.

"*Circumcision reduces the chances of contracting HIV and STIs so males should do it before they start having sex as it would be highly beneficial."* (Participant 10)

"Not only does circumcision reduce the chances of HIV and other sexual transmitted diseases, people should not forget that sex is a pleasure, but there are negative consequences which go hand in hand with it, so circumcision is the way forward for males." (Participant 14)

Most males stated that circumcision leads to the reduction of HIV and different STIs, but that was not the leading or promoting factor for circumcision. The participant's perceived circumcision as leading to many benefits. One of the participants contended that it is important for men who have undergone circumcision to also use condoms. He recognised the benefits of a combination of strategies to reduce the risk of HIV infection.

"You can still get infected with HIV you find that at times your female partner is not clean, meaning all the STIs she has might get into your penis whether you are

circumcised or not, so we must be certain about the choices we take. I am already circumcised but I still use the condom." (Participant 3).

4.4.2 Community influence

The community can influence one's decision-making to undergo a circumcision. There are certain social forces which influence an individual within the local communities. Out of the fifteen men, four agreed that they had been greatly influenced by the community in their decision to undergo circumcision. Two of the participants stated that they had heard of circumcision through church programs for the youth. Community programmes are useful in creating awareness of the benefits of MC.

"I was ignorant about the whole circumcision thing, people used to talk more about circumcision at my congregation, one of the issue I had was that I was scared until one of the guys I went to church with told me that it is not bad I think there have been improvements and it does not pain that much." (Participant 14)

"It was through youth programmes which usually take place on Saturdays in different place every week whereby we had something like a man's conference which had a great influence on my decision to undergo circumcision." (Participant 3)

4.4.3 Hygiene

Hygiene should not be underestimated as it is one of the most important promoting factors. Participants discussed the importance of hygiene. Hygiene prevents *smegma* which is caused by the lack of proper cleaning of the penis. For uncircumcised men they would have to wash their penis twice a day for it to be recommended as good hygiene.

One of the uncircumcised men explains:

"*We as males should go for circumcision. It is important not only for HIV reduction however, for keeping me clean and preventing the smell that I get when I urinate every morning."* (Participant 3).

Additionally, some circumcised participants stated that since they went for circumcision hygiene has not been a problem. One man noted that he was no longer giving off a bad odour. In addition, he felt much cleaner after having undergone circumcision. One of the respondents said:

> *"Hygiene for every human being is very important because it can boost your self-confidence, since I have circumcised the white stuff in the foreskin doesn't appear anymore and it's much easier to wash now."* (Participant 6)

The role of hygiene is an important factor for most participants. A circumcised penis does not only produce better hygiene, but the appearance of the circumcised penis is much better than of the uncircumcised penis, this is illustrated by the following respondents:

> *"Not only does a circumcised penis smell clean but the appearance as the whole looks better. There was a time when my girlfriend would always tease me about my uncircumcised penis but since I am circumcised, she always tells me how good it looks."* (Participant 3)

> *"The experience I have had with hygiene, I usually have a problem when urinating and I cannot really urinate well with the foreskin because the urine spills, and some days my penis has this bad smell, as soon as I went for circumcision I can urinate well without even having to move my foreskin and the smell has gone away."* (Participant 2)

4.4.4 Improved sexual performance

Male participants believed that circumcision improved the sexual experience for both women and men, with the participants contending that they last longer in bed and they enjoy sexual activities more than when they were still uncircumcised. A participant stated that:

> *"Since there is a reduced sensitivity in the penis this meant that sex was much better after circumcision."* (Participant 1)

Most participants mentioned sensitivity and they perceived this as a positive factor because it made the sexual experience last longer. They found that they were able to last longer before ejaculation, one of the circumcised participants stated that:

> *"After seven weeks of circumcision, I decided to have sex again, I called my partner to come visit me and she came over, before I had circumcised my foreskin used to hurt at times when I try doing sex and I used to ejaculate very early, but now I last a bit longer. What I can say is sex has really changed and my girlfriend likes it more than before."* (Participant 3)

Not only did the participants talk about the sexual performance they felt that they found the experience more satisfying. The participants also indicated how their partners were more sexually adventurous after circumcision.

> *"My ex-girlfriend did not know that I had undergone circumcision, every time we met, we usually had one thing in mind and I had told her that I had previously removed my foreskin after we had sex. Every time we met after she knew that I was circumcised she would want sex even if she was on her periods. This goes to show that a lot of females prefer males with circumcised penises."* (Participant 4).

Additionally, the respondents felt that they were able to satisfy their partners sexually, they felt that sex was more pleasurable than before. The ejaculation process had shifted from being very fast to taking more time and they enjoyed sex resulting in them wanting to perform more rounds.

> *"In most cases I have heard males say that their sexual experiences became better because they had performed medical MC. They say the penis is less sensitive and the foreskin is nowhere to be found, takes much time to ejaculate, they said more things like having much more rounds with your partner. That is the reason why I went for circumcision because I wanted to satisfy my girlfriend in every way I can."* (Participant 14)

Circumcised males were able to get more oral sex from their female partners than before they got circumcised. Males reported that those who were circumcised had the ability to have

more frequent sex and perform more rounds in a short period of time. Participants had this to say:

> *"When the foreskin is removed, the penis becomes drier- it is not wet like before when I had not been circumcised, I easily get a quick arousal and want to do sex again, unlike before I would do just one round and would easily lose interest to perform the second round, but in this case because circumcision I can wait up to five minutes after the first round to do the second round, my previous partners even liked putting it in their mouths."* (Participant 10)

On the other hand, one of the participants who usually does sex with other men indicated that there were more benefits and oral sex was even much easier to perform as the removal of the foreskin makes it much easier to play around with penis in the mouth.

> *"Let me be honest, if I ever come across a situation whereby I have to perform oral sex on a male and I find any kind of smell, I would honestly tell that person to please go wash their penis before we even start talking about sex, but never in my life have I come across this situation, that is because my previous partners are circumcised and you do not really have to think about the smell which is usually caused by foreskin."* (Participant 6)

4.4.5 Partner's approval and mother's support

The role of partners is more complex in the decision-making process. They are certainly the promoting factors for circumcision but they can also put unnecessary pressure on men who are currently not circumcised. Partners' influence can also have an interpersonal influence on the decision of males to undergo circumcision. Ten of the fifteen participants in the relationships stated that they had talked with their partners about circumcision. Among the participants who are uncircumcised and circumcised, there was a number that acted differently from the wishes of their female partners. Five of the fifteen males had performed circumcision against the wishes of their female partners. Persistent females are the leading factors that encourage males to seek for circumcision. One of the participants stated that:

> *"My partner had been telling me about circumcision for months but at first I was not really up for it because I did not see the need of going for circumcision and most of the time, I used a condom, but she kept on nagging me for months and I ended up doing it."* (Participant 15)

The females can easily influence their partners whether to seek for circumcision or not. In most cases the partners do not only encourage their male partners to seek circumcision, but they are also there to support them when they go to the hospitals or clinics where circumcision is done. One of the participants stated that:

> *"For me everything was a bit easy. At first I was horrified to even go for circumcision but when I had explained to my partner she was welcoming and offered to go with me to the clinic, even in the healing process she was there all the time when I felt pain and needed any assistance, so for me my partner is the best."* (Participant 14)

Mothers play a big role in the healing process as they help take care of males when they have gone for circumcision and they help if there are any complications like bleeding and fever. In addition, they help males to feel at ease when having to go for the procedure. The parents accompany their adult sons for circumcision because they are always there when they are needed and they always offer support to males making it much easier for them to undergo circumcision without thinking of the pain and the necessary check-ups.

> *"For me mothers are very important. I was very secretive about my private parts. I had signed my own consent form but as time went by with the follow ups it became a problem, my mom helped me to do everything accordingly and I saw her importance because the whole time she was there listening to how the wounds should be taken care of and she recorded every instruction given out."* (Participant 13)

The other possible reasons why female partners play a huge role in encouraging males to seek for circumcision is to try to help them.

"My girlfriend has tried several times, she always said go do it, just go do it, since she kept on telling me like every day of the week, it is cleaner. All this nagging was about me getting better in bed but I know she would not tell it just like that." (Participant 14)

4.5 Inhibiting factors of medical MC

Much like the promoting factors the inhibiting factors that prevent males seeking circumcision are powerful and multifaceted. Men identified a number of barriers including fear of pain, discomfort and side effects. They also expressed concern about being judged by health workers.

4.5.1 Fear

Fear is one of the leading barriers that prevents males from undergoing medical MC. The issue with fear among all males is not a surprising issue when looking at the nature of the clinics and hospitals where circumcision is practised. Circumcision is an emotional topic. Males experience fear when having to seek for circumcision. These fears include embarrassment that they may encounter when being helped by nurses. Some expressed concern that they will be judged for having a small or large penis. Additionally, there are two fears that could have a negative impact on sexual experience and sexual performance, although the leading fear of pain is mostly brought up by males.

4.5.1.1 Fear of discomfort

The most common fear among uncircumcised man is the discomfort one faces after performing circumcision. Some males felt that they would have to expose themselves and this might lead to some discomfort. They were particularly afraid of judgement about their genitals. One of the participants stated that:

"For me one of the thing I do not like about being circumcised is that I would not feel comfortable with someone I do not know and has to touch my private part, because people who work in these clinics might even judge the size of my penis

and that would really bring down my level of confidence because they would be comparing the size of my penis to the previous people who have practised it." (Participant 5)

A participant in the study who was not yet to be circumcised supported this assertion that they would not feel comfortable showing his penis to someone they are not close to because this may lead to judgements by the staff working there:

"For me the barrier I have for not going into circumcision, people who start discussing my penis because for me my penis is my world and if you start saying it is little, I would feel uncomfortable and when you compare it with bigger ones." (Participant 11)

4.5.1.2 Fear of complications

The fear of complications that males might encounter when going for circumcision is one of the leading factors that prevent males from seeking circumcision. Since the operation concerns their penis, a very sensitive body part, they fear complications during the procedure could result in long-lasting effects. The most common fears that males consider are scarring, infection during the process and haemorrhage that might occur after circumcision. One of the participants stated that:

"The day I went to the hospital to seek for circumcision, I was very scared the whole time, in my mind I had this feeling that something may go wrong, there is a lot of things in your mind, you end up being paranoid by the whole thing, you think of weird stuff that you have researched about before coming for it. It is very uncomfortable." (Participant 6)

4.5.1.3 Fear of sexual performance

The fear of sexual performance is one of the leading fears brought up by the participants during sex. Males thought circumcision would have a negative impact on sexual

performance. The fear of sexual performance relates to fear of complications because there is a belief that after circumcision something may go wrong. One of the participants stated that:

> *"The feeling I had on the day of circumcision, I was very scared to be honest. People were walking up and down. At the time I was sitting with people who were there to be circumcised, they called my name to go inside, I went in, for some reason I thought I would get an erection, after I got inside the nurses tried to get my penis erect but it was not able to because I was very scared and they had injected it, I had fear that it would not be able to get an erection and my partner would leave me, when I got home the same day I had erection."* (Participant 1)

4.5.1.4 The fear of pain

The fear of pain differs among males; some males fear being injected on their penis because they feel like it might even take time to heal. The nurse or doctor performing circumcision should be skilled because an unskilled person may result in the whole process to be very painful. The whole belief is stated by one of the participants:

> *"For me pain is the first thing that comes to my mind when I think of circumcision, for the first time in my life I was scared of a needle, I even got much more scared when they told us that there would be a ring block. We as guys tend to hide how we feel but we are also humans and we are scared too. The fact that we need to be injected with a needle that is what we call pain. The pain is very discomforting."* (Participant 15)

Fear is something which every male comes across at a certain stage in life. One of the participants indicated that his girlfriend was very encouraging, but the fear of pain is still the barrier stopping him from undergoing male circumcision.

> *"I have a 2-year-old boy, but my girlfriend wanted me to go for circumcision because she felt like I have got a low sex drive and she does not approve of that by any chances She had this idea that if I were to go for circumcising the sex would be better for both of us."* (Participant 2)

4.5.2 Health services

Males are usually scared that the conditions of health facilities are not up to standard. The circumcised males are the ones who influence uncircumcised males by giving them feedback about the whole operation. One of the leading issues is the experience of the previous clients, the long waiting hours in the queues and the poor organisation of the whole operation. In most cases you find that males go to the facilities only to find long lines and they become impatient and end up leaving without being circumcised. Males become frustrated by the whole process and they may create negative narrative for those who still seek to get circumcised. One of the participants stated that:

> *"Waiting in clinics and hospitals, having to sit and wait that can easily have a negative effect on males to seek for circumcision, whereby if mobile clinics were given that could influence males in a different way to seek male circumcision and that could play a huge role."* (Participant 9)

> *"I think having to be around hospitals and having to see people come with different issues is one of the leading factors that us males have. I grew up knowing that people who go to hospitals are sick, so having to see people who are sick makes me sick as well. It would be better if we males were being helped in different environments."* (Participant 2)

4.5.3 Check-ups

After performing circumcision males are required to go back for regular check-ups to the same facility where they were circumcised, usually after forty-eight hours, seven days and twenty-one days. When going for follow ups males are examined by nurses and they are taken care of. The check-ups can be very negative at times. Males do not usually take care of themselves during the healing period and they come back to clinics or hospitals with complaints. Two of the participants stated that:

> "*From my experience with the check-up is that the nurse had pressed my penis and it was very painful, she never did it gently, for some reason I think she never*

did care about my penis and someone who values my penis you cannot just do anything, anyhow." (Participant 4)

"People working there they tell you to squeeze the penis hard and decrease the swelling, but I did not follow the instruction they gave me, when I went for my second check-up my penis was swollen, they removed the bandage and it was very painful." (Participant 3)

4.5.4 The role played by the health workers

Most males feel that the problem with the check-ups is associated with the staff. Some males feel mistreated when they undergo circumcision and they feel discouraged to go back to hospitals and clinics. When males seek for male circumcision for the first time, with the staff usually being female nurses, they complain about not being touched gently and they prefer being assisted by male nurses. One of the participants stated that:

"The nurse who was helping me for my check-ups, when she was touching my penis she treated it like just an object. For some reason I thought she would be very careful with it and I had wished a man was helping me out because he would know the importance of a penis and would be very careful when dealing with it and I felt like the nurse was not very skilled." (Participant 2)

4.5.5 The long period of healing process

Males who have undergone circumcision are advised not to engage in any sexual activities for up to five to six weeks for the wounds to heal in a proper manner. In other cases, it may take even longer than six weeks. The participants had this to say:

"One of my friends did not want to partake in circumcision because he felt that he has to wait a long time for him to sleep with his girlfriend and he felt that his girlfriend might even leave him because she liked sex so much." (Participant 15)

"I always think about sex every day and it would be hard for me to wait for 8 weeks I really think I wouldn't survive." (Participant 4)

Additionally, a few males argued that they find it hard to wait for weeks in order to partake in sexual activities with their partners and they find it very hard to sleep in the same bed as their partners because they end up having erections and there is nothing they could do.

"For me the healing process was not much of an issue, but the issue was when I was with my girlfriend because my penis kept on waking up and the painful part is that I could not do anything with the whole situation." (Participant 1).

4.5.6 Partner's disapproval and family influence

Partners play a big role in the decision that males take when deciding to go for circumcision. Females may influence the decision of their family members and partners not to seek for circumcision. One of the participants stated that:

"In most cases you find that our female partners demotivate us "males" to go for medical MC, because the first time I had told my girlfriend about circumcision she never even liked the whole idea and she said something like I am cutting of my penis and she does not want that, because she had this ideology that the sex may change to something bad and she went on further to say that the reason why I want to go for circumcision is because I want to go around sleeping with people." (Participant 2).

Additionally, females are sometimes against the whole circumcision procedure as four of the participants sought circumcision without initially discussing it with their sexual partners. One of the participants stated that:

"My girlfriend for almost 6 years now when I told her she was against the whole process. This one morning I had not told her where I was going, I woke up got dressed and went to the clinic and while I was in the line to get circumcised she

kept on calling I even got a bit nervous about the whole thing and I ended up leaving without being circumcised." (Participant 7)

4.5.7 Family

Members of the family also play a role in putting pressure on men not to go for circumcision. There are different personal beliefs among the different family members. The participants stated that*:*

"We always discuss in my family about circumcision. My dad always saw the importance of circumcision, but my mom was against it every time my dad brought up the topic. That would be an awkward moment because they would both argue, and my mom would end up winning because even today I am not circumcised." (Participant 2)

4.5.8 Comfortability with the body

One of the inhibiting factors to seek for circumcision amongst uncircumcised males is the belief that they are very happy with the penises that God gave them. The argument goes back to the religious element. There is a belief that God designed males to have foreskins and there is no solid reason why people should be against what God has designed for us. This is touched by one of the participants who was circumcised who got in a conversation with a friend.

"This one time I was speaking with a friend of mine, who is not circumcised and randomly he asked me why I had to remove my foreskin because God had designed our bodies knowing very well that we consist of foreskin and if he saw the need not to include the foreskin he would have designed our penis without any foreskin. I could not even debate with him because clearly he was right about God and I am a Christian, he made me feel as if what I did was completely wrong". (Participant 12)

Additionally, one participant who was not circumcised explained his reason for doing so below:

> *"With me it does not have to do with religion or cultural reasons, I only feel as if even if one has the foreskin on they can still be clean meaning that I can always wash my penis when I see the need to, in fact I like my foreskin. I do not really see the need of even going for circumcision and I always use protection, I would not like to see myself in a different light when I have gone for circumcision. With cases of HIV and diseases, whenever comes a time in my life that I have to practise sex without a condom is when me and my partner will go for HIV testing and diseases and that is when I get married".* (Participant 5)

4.5.9 Substance use

Males have a tendency of going to hospitals or clinics under the influence of drugs and alcohol. Males end up not coming for appointments because they might spend more time drinking and doing drugs. The Department of Health does not permit people to undergo circumcision when under the influence of any drugs. Males who are under drug use are usually told to come back at a different day when they are clean from using drugs and they end up not showing up again. One of the participants stated that:

> *"I had taken alcohol a day before I still remember correctly, it was Sunday and my appointment with the doctor was on Monday I had a long night partying with friends. When I got there I smelt of alcohol and my eyes were red showing that I had not been sleeping for some time. When the nurses there saw that I was a bit drunk they had told me to go back home because there would be complications and I might experience a lot of bleeding."* (Participant 8)

The impact of the usage of drugs and alcohol is one of the leading factors that males fail to undergo circumcision. There are cases of males behaving inappropriately in the health facilities due to the influence of the substances in their system.

> *"There was this one morning whereby me and my friend had decided that we are going for circumcision and when we got there to the clinic while we were waiting*

in a queue we were hearing voices from the inside it was more of an argument between the staff and the person who was there for circumcision. After a while the nurse come to all of us who were waiting and they told us that they do not need the behaviour whereby we as males come to clinics drunk and start causing unnecessary drama we decided to leave immediately because the person who was inside had scared us." (Participant 3)

4.6 Government involvement

Most participants stated that the government should intervene in the promotion of male circumcision by providing media campaigns or programmes for people to partake and be informed about the importance of male circumcision and free circumcision. Most participants knew of free circumcision because they grew up in Durban and those who grew up in rural areas were not fully aware that the government offers free circumcision at specific clinics and hospitals and these participants thought they needed medical aid in order to get a circumcision. Cost can serve as a barrier to the use of medical MC. In rural areas, men may not have information about medical circumcision.

"They could use the media and create initiatives that will get people to immediately get circumcised. Back in my high school they would come and offer free medical MC when it was around vacation or mid-term breaks. So these kinds of things help." (Participant 10)

"I recently moved from the deep side of Zululand and the reason why I never got circumcised long ago is because I thought that one has to pay so much money for the procedure until I came here in Durban this year and when I went to check for my HIV status in the campus clinic they had told me that circumcision is free and they would take me to the nearest clinic if I was interested. This goes to show that the government does not really help us people from deep rural areas because even now people have left home and they know little about circumcision. The moral of the story is that the government should also introduce free circumcision to those in rural." (Participant 7)

In addition, the participants emphasised the importance of social media which is currently used by millions of people and usually gives information. Social media creates social growth in a specific society and the following participant stated that:

> *"They make campaigns and advertising. Also increase social media because the youth is using that mostly and television too because everyone in a household watches television, so they would know about it."* (Participant 9)

Others believed that there is lack of advertising or information given out to people in South Africa about circumcision. Participants stressed that the government should focus more effort in promotion of MC. Social media should be used to advertise MC more widely.

> *"I think it is good to tell kids when they are younger about this because usually they do not know until they are older. When they are older they realised they should have done this at an early age. I do not blame anyone because in this country many people do not know that much about circumcision whether it is traditional or medical. But I think it is a good initiative."* (Participant 10)

4.7 Summary

The findings revealed overall students did have a substantial knowledge of medical MC and they were able to differentiate between traditional and medical MC. For the most part they all perceived it as a good initiative to reduce HIV infection. Promoting factors were discussed that facilitate or encourage participants to seek circumcision including improvement in hygiene, community influence, improved sexual performance, partner's approval and mothers support. The inhibiting factors that prevented participants from undertaking or seeking male circumcision were fear of discomfort, fear of complications, fear of sexual performance, fear of pain, health services, check-ups, the role played by health care workers, comfortability with the body and government involvement.

CHAPTER FIVE: CONCLUSION

5.1 Introduction

South Africa has a high HIV burden, with the province of KwaZulu-Natal having the highest prevalence in the country (Statistics South Africa, 2018), motivating the need to explore perceptions of MC as an important HIV reduction strategy in a high prevalence province. There is evidence showing that medical MC decreases the chances of men being infected with HIV and STIs. While it only provides partial protection, it is an effective preventative strategy towards reducing HIV and STI infection, being regarded as the safest circumcision method when performed in health facilities. The study aimed to determine the perspectives of male circumcision as an HIV strategy among young male students using in-depth interviews at the University of KwaZulu-Natal (Howard College campus). This chapter outlines the key findings emerging from the interviews and discusses this with reference to other studies. It concludes by suggesting recommendations for the future.

5.2 Discussion

The findings indicate that some of the participants were aware that medical MC provides partial protection from being infected with HIV and STIs. This is supported by the randomized controlled trials in Africa, which revealed that voluntary medical MC reduces female-to-male HIV infection by 60 percent, with the World Health Organization having recommended the use of medical MC as a HIV reduction strategy since 2007 (World Health Organization, 2012). South Africa has a high HIV burden, with the KwaZulu-Natal Province having the highest prevalence in the country (Statistics South Africa, 2018), motivating the need to explore males' perception of an important HIV reduction strategy in a high prevalence setting. The purpose of male circumcision in South Africa has a bio-medical basis, this being a HIV prevention strategy, with various studies indicating its effectiveness in reducing the risk of infection of HIV transmission from females to males (Auvert et al., 2005; Bailey et al., 2007; Gray et al., 2013). Studies in South Africa show that decreasing HIV infection is one of the factors encouraging young males to seek circumcision (Peltzer et al. 2014; George et al., 2014).

The theory of planned behaviour was selected as the most appropriate theoretical framework for this study. This is because it has been used successfully to understand a variety of health behaviours such as health services utilization and in this current study to explain the uptake of the HIV reduction strategy of medical MC (Ajzen, 1991). The premise of the theory is that behaviour, such as opting or rejecting to undergo medical MC is influenced by attitudes and subjective norms (Ajzen, 1991). The theory comprises three facets which are the following; firstly, attitude entails the general view a person has of the outcome of choosing the planned behaviour. Secondly, subjective norms consider the person's personal beliefs and also the beliefs of people close to that person. The final aspect is the perceived behavioural control which is the person's perception of difficulty of performing the particular behaviour. This will then determine the person's decision to either undergo medical MC or decide not to (Ajzen, 1991).

The promoting factors of medical MC that emerged from the findings can be theoretically explained by the theory of planned behaviour. Medical MC as a HIV infection reduction strategy was the leading promoting factor for the participants. The interviews showed that only some of the participants could recall the percentage by which medical MC protects males from HIV and STI as being 60 percent. Moreover, those who had already undergone male circumcision or were informed about it being a health benefit provided the most informed answers. Moreover, they have received several public health messages concerning reducing one's risk of HIV infection, so generally that has informed their attitude about ensuring that they need to protect themselves from HIV infection. Subsequently, the public's attitude towards reducing the HIV infection rate has therefore influenced the personal or subjective beliefs of the participants. They do not want to be infected with a lifelong infection, hence they perceive a HIV reduction strategy such as medical MC as a promising initiative to reduce their risk of infection. In light of this, some participants planned behaviour towards medical MC has already been realized as they have taken the decision to undergo circumcision. Those who are uncircumcised highlighted that they intend to seek medical MC as they are willing to reduce their risk of becoming infected with HIV. Several studies which focus on the promoting factors that encourage males to seek circumcision concluded that reducing the chances of being infected by HIV was the leading promoting factor (George et al., 2014; Hatzold et al., 2014). Most males who went for circumcision stated that the main motivator that encouraged them to seek circumcision was the desire to decrease their chances of contracting HIV.

The results indicated varying views on hygiene as a leading promoting factor for medical MC. Although all the students stressed the importance about always keeping their penis clean the participants who were not circumcised did not see the hygiene factor as an important motivator for them to seek circumcision because they always washed their penis and foreskin, the latter being the cause of a bad smell because it was not clean. Medical MC therefore made it possible to clean the penis. Jayathunge et al. (2014) highlighted that the moisture found under the foreskin of uncircumcised males increases the chances of them being infected with HIV.

The participants acknowledged the widespread perception that circumcised penises are cleaner and men who have removed their foreskin are more hygienic. They reported that their female partners also perceive circumcised penises as more hygienic, they preferred the appearance of the penis without a foreskin. This would possibly have influenced the participants' subjective beliefs about circumcision, as did the attitudes and norms about the hygienic benefits of medical MC, which also influenced their behaviour (Ajzen, 1991). In addition, those who were not circumcised did indicate that they would possibly seek medical MC to improve their hygiene. Hygiene is regarded as an important leading factor in most studies conducted in South Africa (Auvert et al., 2005; Hatzold et al., 2014; George et al., 2015).

The findings showed that the students were mainly influenced by the people close to them regarding circumcision, such as their partners and family members. The interviews suggest that most males who were circumcised, or thinking of seeking circumcision, had been encouraged by family members and sexual partners. George et al. (2014) focused on identifying the facilitators and inhibiting factors among boys in KwaZulu-Natal and reported that mothers played a major role in this decision. The students reported that their female partners found circumcised men more sexual appealing.

The findings in the study revealed that males who were circumcised enjoyed sex more than males who were not circumcised. Some of the young men believed that circumcision enhanced their sexual performance, and their female partners concurred. The results also reveal that females found sex more appealing and wanted to perform sexual activities more regularly than before their partners were circumcised. The participants indicated that oral sex was also a more frequent activity. The perception that medical MC enhances sexual performance has also shaped their attitudes and norms. Most of the males felt that it was

important to display their sexual prowess and skills, this belief having influenced their intention to undergo circumcision, as they wanted to enhance their sexual performance. This is supported in a study by Hatzold et al. (2014), which focused on the facilitators and barriers to medical MC in Zimbabwe.

The theory of planned behaviour also supported the inhibiting factors to medical MC that emerged from this study. Fear of pain is one of the leading inhibiting factors that results in males not being circumcised. The findings are supported by the literature that focuses on the inhibiting factors for male circumcision in South Africa. George et al. (2014) reported on the barriers for adolescent boys seeking circumcision in KwaZulu-Natal, with the fear of pain being the main inhibiting factors after and before the procedure. The findings are supported by Hatzold et al. (2014) on the barriers to seek circumcision in Zimbabwe. Common fears stated by George et al. (2014) and Hatzold et al. (2014) among males in Zimbabwe were having to do an HIV test (George et al., 2014; Hatzold et al., 2014; Auvert et al., 2005). However, in this study, the participants did not raise this as an issue.

The interviews suggest that the participants are aware that circumcision is the removal of their foreskin, which is a very sensitive part of the penis. They perceive this as a painful procedure that could cause injury and emphasised that their penis was an important organ on their body and that they were fearful of undergoing the procedure that could perhaps cause lasting damage or cause them pain. As a result, the participants were discouraged from performing the particular planned behaviour of choosing to undergoing circumcision (Ajzen, 1991). In line with Naidoo et al. (2012), pain was cited as the most common barrier to respondents not wanting to be circumcised, as the apprehension of pain during and after the procedure was reported to be the major barrier to male circumcision acceptability.

The male participants indicated that the healing period of six weeks resulted in them not being able to engage in any sexual activities. This implied that most of the participants wanted to have sexual intercourse regularly, which would not be possible if they were to undergo circumcision as they do not want to forget sex while waiting for their penis to heal. The participants also expressed an attitude that their female partners might show some reluctance about them undergoing circumcision. The males believed that their female partners would perhaps seek sex elsewhere as they would not be able to engage in sex during the six-week healing period. This perception of female partners' unwillingness to wait discouraged some participants from undergoing medical MC. However, the males and females found it

hard to wait for six weeks with this being a barrier to circumcision, and this is supported by a number of studies (Lagarde et al., 2003; Scott et al., 2005; Ledikwe et al., 2014). Males stated that the waiting period of six weeks leads the female partners to look for sex from other men (George, 2014). The issue of not wanting to wait for six weeks in South Africa has risen as one of the significant barriers for males to undergo medical MC.

The participants stated that the influence of their family members and partners was both a barrier and a promoting factor. They indicated that when they decided to seek medical MC, they were easily influenced by family members and partners not to undergo the procedure. A study in South Africa found that 45% of respondents who were still planning to undergo male circumcision noted that the parents, family or community would not approve (Mark et al., 2012). Some participants noted that their female partners were against them seeking circumcision, as they believed that they would sleep with other girls. Moreover, parents were against their sons seeking medical MC because they believed that they would start having sexual activities at an early stage in life. A study by Maughan-Brown et al. (2011) found that 92% of circumcised participants reported sexual debut before circumcision. The female partners and family members can be regarded as important promoting factors to present themselves for medical MC, as well as powerful barriers. A study by Macintyre et al. (2014) in Kenya noted that partners could influence men's decisions in a negative way and were against circumcision due to the suspicion that they would then cheat.

The findings showed that most of the uncircumcised males felt that health facilities were not a good place to seek circumcision and displayed a negative attitude towards them as they perceive them to be ill-equipped to undertake such procedures. They also felt that health care workers were unprofessional, which influenced their belief that circumcision in a health facility may not be a good decision. The young men's experiences of clinics and health institutions has thus posed as a powerful inhibiting factor. A study on perceptions of male circumcision among pharmacy and nursing students found that they hold negative attitudes and risk perceptions that could become barriers in their eventual professional treatment of patients who undergo male circumcision (Naidoo et al., 2012).

This is also supported by Ledikwe et al. (2014), who indicated that the treatment of males in clinics is a factor that affects voluntary medical MC. Some participants in the study indicated that the way clients are treated is an important factor to either persuade or dissuade males from undergoing circumcision. The findings in the study revealed that another barrier raised

by the participants was the unwillingness of uncircumcised males to remove any body part that was designed by God. Some males were Christians, who believed that what was written in the bible should be respected, and that God had designed the human body knowing very well that the penis consisted of the foreskin, its removal being regarded as a sin that they would live with a for the rest of their lives.

5.3 Recommendations

Based on the findings, young male university students are still not fully informed about medical MC such as the myths, health benefits and health facilities that offer the service. Hence, the main recommendation from this research is that information on medical MC needs to be disseminated effectively. It is imperative that a social mobilisation campaign is rolled out to effectively promote medical MC. Disseminating medical MC information through various media channels would be an effective strategy to ensure that as many people in the public receive the correct information about medical MC. Television advertisements and billboards are commonly used mediums to share public health messages. However, considering a younger demographic group such as the male university student, it would be useful to also include campaigns on social media platforms. The majority of university students have at least one social media application. Video advertisements could be placed on streaming applications such as YouTube and Spotify, where one cannot skip the advertisements hence, this would encourage people to learn more about medical MC. Moreover, advertisements should also be placed on Instagram, Facebook and Twitter which are commonly used social media apps.

The content of the advertisements should be clear and also something easy to remember, it should emphasise that medical MC is one of the HIV reduction strategy and includes other health benefits. In addition, campaigns should also highlight that medical MC can be performed for free at public health facilities and the campaigns should debunk myths related to circumcision. It is certainly crucial to stress that medical MC does reduce the risk of HIV infection from females to males, nonetheless, it is only by 60 percent hence condom-use should be strongly advised. Additionally, while it is important to continue promoting medical MC as a HIV prevention strategy to encourage males between ages of 14 and 50 years to seek for medical MC it would be vital to include other beneficial aspects of circumcision.

Enhanced hygiene and sexual performance were promoting factors of medical MC that emerged from the findings. As such, these factors should be included in campaigns. For instance, an advert could show males discussing how they are enjoying sex more after undergoing circumcision. This could encourage young males to seek circumcision as most males take pride in proving their sexual prowess. In other words, if medical MC is linked to enhanced sexual performance they would be more inclined to consider medical MC.

Cultural and religious groups could also contribute to increasing the uptake of circumcision. Ledikwe et al. (2014) indicated that medical strategies, such as HIV reduction campaign, are more likely to be successful when supported by cultures. Cultural acceptance should be one of the key considerations when creating and implementing strategies for males to get circumcised. The campaigns should state clearly that there would be safe and free circumcision for males who are interested in medical MC for all races. The strategy would work accordingly with the findings of Ledikwe et al. (2014), who stated the importance of ensuring that HIV reduction strategies are contextualised meaning they consider the cultural settings in efforts to encourage the local population to understand the importance of MC.

Additionally, campaigns in university campuses would be highly effective. Local artists or popular speakers could be at the forefront of these university activations where they engage with students and provide key information about MC. Students could also be provided with free gifts such as USBs and bottles that promote MC hence in that way they would be reminded about MC every time they use the gift.

Recommendations that align with the inhibiting factors to circumcision need to be geared towards decreasing the fear of pain males encounter during or after the procedure of circumcision. The introduction of PrePex™ device, is the leading method to deal with the fear of pain and any complications that men come across (Lebina et al., 2015). The device works as a non-surgical method which cuts the blood flow of the foreskin. The foreskin is removed within 7 days of the procedure. There is some pain when removing the device and some males find the device not comfortable as they have to wait for 7 days in order for it to be removed (Lebina et al., 2015). The device was introduced in Cape Town on the 1st November 2015. The device reduces the chances of experiencing a higher level of pain and reduces chances of experiencing complications. A study should be conducted in Durban to investigate the acceptability of the use of the device among males between 14 and 50 years (Lebina et al., 2015).

The final recommendation is that this study could be replicated in other universities to see if students elsewhere have the same opinions so that campaigns to target this population can be developed**.** However, MC has shown to be a very important prevention measure for HIV resulting in different reasons for males to seek it.

5.4 Conclusion

Within the context of a growing HIV epidemic in Africa, and South Africa in particular, measures need to be found to prevent its transmission. Traditional circumcision is performed in some South African cultures as young men's rite of passage to manhood from boyhood, with others needing to decide for themselves if they want to undergo this procedure. It is also known to have additional health benefits, such as reducing the chances of being infected with HIV, STIs and penile cancer. The service is provided for free in public sector health facilities, being part of the country's HIV prevention campaign. While it is regarded as an appropriate prevention measure on several levels, the reasons for its uptake, or lack thereof, have not been explored among young male university students in KwaZulu-Natal Province, these being future leaders. Their opinions were canvassed that showed that they preferred medical MC than TMC.

In conclusion, the views stated by the participants in the study suggests that there is a need to continue raising awareness that addresses the benefits, misconceptions and myths about circumcision. The evidence shows that medical MC is a safe procedure for males that reduce the chances of young men being infected with HIV and enable young men to live a long and healthy lifestyle. Thus, accurate and correct information about the role of medical MC can easily influence the decision making of young men now and in the future.

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APPENDIX A: INTERVIEW SCHEDULE

Project title:

Male circumcision as an HIV and AIDS prevention strategy: perspectives and experiences of students in University

Section A

1. How old are you?
2. What is your nationality?
3. Which area to do you come from?

Section B

1. Have you heard of circumcision?
2. What have you heard?
3. Have you heard of different types of circumcision? Which?
4. What is your understanding of circumcision?
5. Do you know what MMC is? If yes please tell me what you think about it. Anything else?
6. What is the purpose of MMC?
7. According to your understanding what are the advantages of MMC and the benefits? What are the disadvantages?
8. What do your friends think about it? What do sexual partners think of males who have been circumcised?
9. What age should it be done? Do you think MMC should be done at a very young age or it should be a choice?
10. Would you suggest circumcision to your relatives and peers? And why would you do that?
11. What impact do you think circumcision has on sexual behaviour? Does it increase condom use?
12. Do you think MMC should be given more attention in order to decrease the high levels of HIV and AIDS?
13. How could the government intervene in order to promote MMC?

APPENDIX B: GATE KEEPER'S LETTER

UNIVERSITY OF
KWAZULU-NATAL

INYUVESI
YAKWAZULU-NATALI

7 June 2018

Mr Malibongwe Julius Dumisa (SN 214510690)
School of Built Environment and Development Studies
College of Humanities
Howard College Campus
UKZN
Email:

Dear Mr Dumisa

RE: PERMISSION TO CONDUCT RESEARCH

Gatekeeper's permission is hereby granted for you to conduct research at the University of KwaZulu-Natal (UKZN), towards your postgraduate studies, provided Ethical clearance has been obtained. We note the title of your research project is:

"Male circumcision as an HIV and AIDS prevention strategy: Perspectives and experiences of students in University".

It is noted that you will be constituting your sample by conducting interviews with male students on the Howard College campus.

Please ensure that the following appears on your notice/questionnaire:

- Ethical clearance number;
- Research title and details of the research, the researcher and the supervisor;
- Consent form is attached to the notice/questionnaire and to be signed by user before he/she fills in questionnaire;
- gatekeepers approval by the Registrar.

You are not authorized to contact staff and students using 'Microsoft Outlook' address book. Identity numbers and email addresses of individuals are not a matter of public record and are protected according to Section 14 of the South African Constitution, as well as the Protection of Public Information Act. For the release of such information over to yourself for research purposes, the University of KwaZulu-Natal will need express consent from the relevant data subjects. Data collected must be treated with due confidentiality and anonymity

Yours sincerely

[redacted]

MR S MOKOENA
REGISTRAR

Office of the Registrar
Postal Address: Private Bag X54001, Durban, South Africa
Telephone: +27 (0) 31 260 8005/2206 **Facsimile:** +27 (0) 31 260 7824/2204 **Email:**
Website:

APPENDIX C: ETHICS APPROVAL LETTER

UNIVERSITY OF
KWAZULU-NATAL

INYUVESI
YAKWAZULU-NATALI

31 August 2018

Mr Malibongwe Julius Dumisa (214510690)
School of Built Environment & Development Studies
Howard College Campus

Dear Mr Dumisa,

Protocol reference number: HSS/0486/018M
Project title: Male circumcision as an HIV and AIDS prevention strategy: Perspectives and experiences of students in University

Full Approval – Expedited Application

In response to your application received on 17 May 2018, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol has been granted **FULL APPROVAL.**

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

APPENDIX D: INFORMED CONSENT

UKZN HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE (HSSREC)

APPLICATION FOR ETHICS APPROVAL

For research with human participants

INFORMED CONSENT

Information Sheet and Consent to Participate in Research

Date: _____

I would sincerely like to thank you for making and dedicating time to meet with me today.
My name is Malibongwe Julius Dumisa from the University of Kwa-Zulu Natal, Howard College. I am a Master's student from the School of Built Environment and Development Studies, under the College of Humanities (Cell: 0817665329; Email: 214510690@stu.ac.za)
My Supervisor is Professor Pranitha Maharaj (Tel: 031 260 2243; Email: maharajp7@ukzn.ac.za), also from the School of Built Environment and Development Studies.

You are cordially invited to consider participating in a study that involves "Male circumcision as an HIV and AIDS prevention strategy: Perspectives and experiences of students in University". The overall aim of the study is to determine perspectives of male circumcision as a HIV strategy among students at a University.

It will involve the following procedures:

All participants will answer questions that require them to give details about their experiences, knowledge and attitudes towards male circumcision. The duration of your participation if you choose to enroll and remain in the study is expected to be an hour or less.

This imply that if the participants does not feel comfortable in answering some of the questions, they may be allowed to drop the interview at their specific time.

The study may involve discomforts such as to explaining to the researcher about your past experiences when it comes to circumcision.

I hope that the study will create the following benefits such as contributing to the universal academic debates on masculinity and health. If ever you feel like other questions are too deep and makes you feel uncomfortable, I will make sure that you get an appointment to see the Student Counselling unit within campus. The study will be conducted at your safest environment whereby you will feel free to answer the questions posed by the researcher.

This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee (approval number **HSS/0486/018M**).

In the event of any problems or concerns/questions you may contact the researcher at (Cell: 0817665329 or Email: 214510690@stu.ukzn.ac.za) or feel free to contact the UKZN Humanities & Social Sciences Research Ethics Committee, contact details as follows:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001
Durban
4000
KwaZulu-Natal, SOUTH AFRICA
Tel: 27 31 2604557- Fax: 27 31 2604609
Email: HSSREC@ukzn.ac.za

Remember, your participation in this study is voluntary. You do not have to explore more on anything you do not want to and you may withdraw your participation at any point. In the

event that you withdraw from the study, please remember that you will still be treated with respect as you will not incur penalty or loss of treatment. Thus, there will be no negative consequences on your part should you choose to or not withdraw. However, if you feel like you need counselling after the interview sessions, please do not hesitate to contact me (Malibongwe Dumisa), either on my email address or cellphone number, I will book an appointment or counselling session for you in Student Counselling Services offered by the University of Kwa-Zulu Natal.

Except for your time, you will not incur any other costs by your participation in this study. Unfortunately, there will be no compensation of any kind neither will you be paid financially should you choose to participate in this study. The study will be conducted at a location of your choice within campus, failure to find the perfect location, I will book a room for two in the campus library. There is will be no need to travel, hence no compensation will be given to the participants.

During the interview sessions, I will be taking notes, however, since it will not be possible to capture all the relevant information fast, I will be tapping the session just so that none of your comments are missed. While doing the interviews, please make sure that you speak-up to avoid any response or comments to be left out. If ever you mistakenly say your name during the interview sessions, I will make sure that I trim out that part in the recordings.

All responses will be kept confidential and will only be accessed by the researcher and the supervisor for purely academic purposes. The recordings and notes captured during the interviews, including this consent form will be kept safe in the cabinet in the Supervisor's office for five years. After, they will then be permanently deleted and shredded and will not be made available to anyone else.

I will ensure you that any information to be included in the final report will not identify you as the respondent, as you will be kept anonymous protecting your identity is a priority for this study

If you have any questions regarding the above information, please point out and ask.

CONSENT (Edit as required)

I_____ have been informed about the study entitled *"Male circumcision as an HIV and AIDS prevention strategy: Perspectives and experiences of students in University",* by Malibongwe Julius Dumisa (Student no.: 214510690)

I understand the purpose and procedures of the study which includes answering questions that requires me to draw on my perspectives of male circumcision.

I have been given an opportunity to answer questions about the study and have had answers to my satisfaction.

I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any of the benefits that I usually am entitled to.

I have been informed that there is no available compensation or medical treatment if I become distressed as a result of study-related procedures, however, I have been informed to contact the Student Counselling unit within my campus or contact the researcher to make an appointment for me.

If I have any further questions/concerns or queries related to the study, I understand that I may contact the researcher at (Cell: 0817665329 or Email: 214510690@stu.ukzn.ac.za)

If I have any questions or concerns about my rights as a study participant, or if I am concerned about an aspect of the study or the researchers then I may contact:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION
Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001
Durban
4000
KwaZulu-Natal, SOUTH AFRICA
Tel: 27 31 2604557 - Fax: 27 31 2604609
Email: HSSREC@ukzn.ac.za

Additional consent, where applicable

I hereby provide consent to:

Audio-record my interview	YES	NO

_____ _____

Signature of Participant **Date**