Support for Voluntary Medical Male Circumcision (VMMC) for HIV Prevention among Men and Women in Zimbabwe

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Abstract

Background: *Medical male circumcision was introduced in Zimbabwe in 2009 as an additional HIV prevention method. This study sought to investigate support for the roll-out of voluntary medical male circumcision (VMMC) and men's willingness to get circumcised for HIV prevention.*

Data and Methods: *Data for this study was collected from a randomly selected sample of 681 men and women in the age group 18-49 years in Harare, Zimbabwe. The obtained data was analysed using descriptive statistics, bivariate and regression analysis.*

Results and Conclusion: *The results of the study suggest that knowledge and acceptability of VMMC is high. However, despite the relatively high knowledge and acceptability of VMMC, less than half of the male participants were willing to undergo circumcision for HIV prevention. The study concluded that there is an apparent gap between knowledge and acceptability of VMMC and men's willingness to undergo circumcision for HIV prevention.*

Keywords: HIV prevention; medical male circumcision

Résumé

Contexte: *La circoncision masculine médicale a été introduite au Zimbabwe en 2009 comme méthode préventive additionnelle du VIH. L'étude examine les conditions de déploiement de cette méthode et la volonté des hommes de se faire circoncire médicalement pour prévenir le VIH.*

Données et méthodes: *Les données de l'étude proviennent d'un échantillon aléatoire de 681 hommes et femmes du groupe d'âges 18-49 ans vivant à Harare, Zimbabwe. Des analyses descriptives bi-variées et une analyse de régression ont été appliquées aux données.*

Résultats et conclusion: *Les résultats de l'étude indiquent une connaissance et une acceptation élevées de la circoncision masculine. Malgré cela, seulement moins de la moitié des hommes enquêtés ont manifesté le désir de se faire circoncire pour une prévention du VIH. L'étude aboutit à la conclusion qu'il existe un écart entre la connaissance, l'acceptabilité de la circoncision et la volonté des hommes de subir cette opération.*

Mots clés : prévention du VIH; circoncision masculine médicale

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Introduction

Recent studies have found a link between male circumcision and diminished chances of getting infected with HIV from women to men (WHO and UNAIDS, 2007). With an HIV prevalence rate of 15 percent and an HIV incidence rate of 0.98 percent (MOHCC, 2014), Zimbabwe is rolling out voluntary medical male circumcision (VMMC) as part of a comprehensive HIV prevention and male reproductive health strategy. According to this strategy, male circumcision is to be promoted along with other reproductive health services such as HIV testing and contraception (Ministry of Health and Child Care, 2014). The promotion of VMMC is targeting to circumcise HIV negative men between the ages of 13 and 27 years. In order to enable access to VMMC services, the procedure is offered for free at designated public health institutions and other health care centers. However, for the population to realize the public health benefits of male circumcision, 80 percent of the male population should be circumcised and this translates to a national target of about 1.2 million circumcisions by the year 2015.

However, male circumcision is not a common practice in Zimbabwe except among the Shangani and a few other communities who practice traditional male circumcision as a rite of passage from childhood to adulthood (Mandova et al, 2013). A recent nationally representative study found the prevalence of male circumcision to be only 11.2 percent (ZIMSTAT, 2014). This prevalence rate is slightly above the 9.1 percent prevalence rate that was reported in the 2010-11 Zimbabwe Demographic and Health Survey (ZIMSTAT and ICF International, 2012). Given that the male circumcision prevalence rate remains very low and that the year 2015 is already at hand, it is difficult to envisage that the set target will be reached. This situation is exacerbated by indications that less than 350 000 men have been circumcised so far and that the demand for VMMC seem to be waning. Hatzold et al (2014) noted that the uptake of male circumcision in Zimbabwe has been far below expectation. It is therefore important that we understand the relationship between acceptability of VMMC on one hand and willingness to get circumcised on the other.

Literature Review

The promotion of voluntary medical male circumcision (VMMC) in high HIV prevalence countries follows findings from three randomized controlled trials (RCTs) in Uganda, South Africa and Kenya which established that circumcision has prophylactic effect against contracting HIV of up to 60 percent for men having sex with women (Auvert et al., 2005; Bailey et al., 2007; Gray et al., 2007). The World Health Organization (WHO, 2014) estimates that if 20 million males from high HIV prevalence countries are circumcised, representing about 80 percent coverage, it would cost US$1.5 billion and thus result in savings of US$16.5 billion by 2025 from treatment and care costs. Furthermore, coverage of 80 percent would avert about 3.4 million new infections. In Zimbabwe, it was estimates that if 1.1 million men are circumcised it would avert 750 000 new HIV infections between 2009 and 2025 resulting in net savings of US$3.8 billion (USAID, 2009).

A number of research studies have been conducted to establish the level of support for circumcision as an addition HIV prevention strategy. An early study on acceptability of VMMC was carried out among the LUO in Kenya by Bailey, Muga, Poulussen and Abicht (2002). They concluded that support for VMMC is sufficiently high to justify the roll-out of the procedure. Similarly encouraging results were reported in South Africa by Scott, Weiss and Viljoen (2005) and by Lissouba, Taljaard et al (2008). In Zambia, Lukobo and Bailey (2007) carried out a similar study and concluded that acceptability of VMMC for HIV prevention was high. Similar results were also reported in Zimbabwe by Halperin et al (2005) and by Mavhu et al (2011).

Despite reporting high acceptable levels for the upscaling of VMMC for HIV prevention, Bailey, Muga, Poulussen and Abicht (2002) observed that the primary barriers to male circumcision were cultural identification, fear of pain and excessive bleeding and costs. Lack of knowledge and resources was also cited as a potential threat to the upscaling of VMMC services. In another study, Herman-Roloff et al (2011) noted that there was need to dispel misconceptions about VMMC.

While several studies have examined the acceptability of medical male circumcision as an additional strategy to reduce the spread of HIV, there is a need to continuously monitor acceptability levels as more people get informed about VMMC. There is also a need to distinguish mere acceptability of VMMC and willingness to get circumcised. In this vain, this study intended to contribute to the body of knowledge on acceptability of VMMC for HIV prevention. In addition, the study was also motivated by a desire to move beyond understanding acceptability to examining willingness to get circumcised because it was felt that acceptability alone is not sufficient to predict uptake.

Conceptual framework

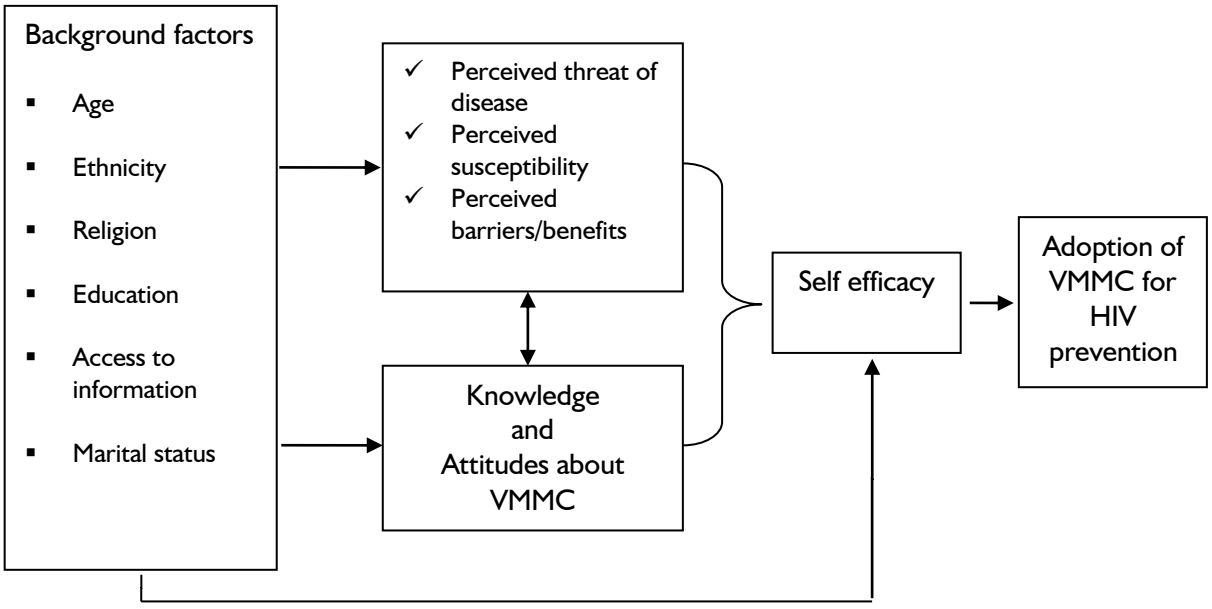
The Health Belief Model (HBM) is a cognitive model that focuses on individual beliefs to predict health behaviour (Glanz et al, 2002). The model was

developed in the 1950s by Hochbaum, Rosenstock and Kegels in an attempt to understand the failure of a free tuberculosis screening programme. The Health Belief Model is based on the premise that a person is a rational being and will take a health-related action if the following conditions are present:

a. the person must feel that a negative health condition can be avoided,
b. the person has to believe that a negative health condition can be avoided by taking a recommended action, and
c. the person must also believe that s/he is capable of taking the recommended action.

The Health Belief Model is premised on six main theoretical precepts. Firstly, an individual carries a self-assessment to review the possibility of getting a condition, say HIV (perceived susceptibility). Furthermore, a person also assesses the severity of the condition (perceived severity) and the perceived effectiveness of the recommended action to minimise risk or severity of consequences (perceived benefits). After those evaluations, the Health Belief Model also presupposes that a person also evaluates the tangible and psychological costs of the recommended action (perceived barriers). The model assumes that after the evaluations, there exist cues to action or factors that may trigger a person to start changing behaviour. The final theoretical precept put forward by the model is self-efficacy in which a person evaluates their ability to execute the recommended action. According to the conceptual framework presented in Figure 1, constructs of the Health Belief Model interact with background factors and knowledge and attitudes about VMMC to influence the ultimate adoption of VMMC for HIV prevention. Thus, according to this framework, improving access to information on medical male circumcision is likely to positively influence attitudes and hence willingness to undergo medical male circumcision for HIV prevention.

Figure 1: Factors associated with the adoption of voluntary medical male circumcision (VMMC) among men in Zimbabwe



Data and Methods

Data for this study was collected from 681 respondents of which 499 were men while 182 were women. The sample size for the men who participated in the study was determined using a statistical formula for proportions while the sample size for the women was calculated as a percentage of the sample for men. Respondents were randomly selected from households in Harare, Zimbabwe. The inclusion of women in the sample was guided by the need to understand women's knowledge and support for the upscale of VMMC for HIV prevention. Women are expected to play a key role in the promotion of medical male circumcision through giving moral support to their sons and partners. All respondents were expected to be aged between 18 and 49 years. This age group was selected because it is the most sexually active in the population and is therefore most likely to be affected by the promotion of VMMC for HIV prevention. The national VMMC programme is targeting men aged 13 and 27 years. We did not include boys below the age of 18 years for ethical reasons. The conduct of the study was approved by the Ethics Committee of the College of

Humanities at the University of KwaZulu-Natal, South Africa.

Data Collection Methods and Instrument

Data in this study was collected using a standard questionnaire. The questionnaires were administered to respondents through an interview. This method of questionnaire administration was selected in order to limit the non-response rate and also in order to overcome biases which may arise from different interpretation of items by respondents.

The questionnaire itself consisted of four sections. The first section collected basic demographic and socio-economic data about the respondent. These included a respondent's age, sex, marital status, religion, level of education and employment status. These background characteristics were used in bivariate and logistic regression analysis as independent variables. The second section of the questionnaire solicited information about a respondent's knowledge of HIV, its transmission and prevention modalities. Also in this section, information was sought about a person's perceived risk to contracting HIV and a person's sexual behaviour. The latter items consisted of proxies of risky sexual behaviour such as condom use, number of sexual partners, drunkenness during sex and HIV testing. These indicators were used to test if there are significant variations in support for medical male circumcision among men who are circumcised and those who are not. The third section of the questionnaire sought information about a respondent's sources of information on male circumcision. This is important because it was used to determine the extent to which information on medical male circumcision has been distributed under the current promotion of the procedure for HIV prevention. Respondents were also asked to give information on what they understood from advertisements of medical male circumcision and on whether they believe the procedure works for HIV prevention. In addition to that, items on perceived/known advantages and disadvantages of male circumcision, knowledge of a place where someone can get a circumcision, the cumulative costs of getting to a place offering VMMC were also included. Finally, the questionnaire consisted of twenty Likert-scale items which solicited respondents' opinions on various issues on the subject of medical male circumcision.

Data analysis

After data collection, all open-ended items in the questionnaires were coded according to the main themes. For example, responses to an open-ended item on the perceived disadvantages of medical male circumcision were coded into six categories. Many responses to this item mentioned pain as a disadvantage of VMMC, some mentioned complications associated either with the procedure or the healing process, and yet others mentioned that the promotion of VMMC might lead to behavioural disinhibition. Responses which could not fit into these broad themes were categorised as "other". After coding, data was entered into SPSS for statistical analysis. The latter involved descriptive statistics to determine the prevalence of both traditional and medical male circumcision and other variables of interest such as the median age at circumcision, bivariate analysis to determine the association between two variables, for example between male circumcision status and background factors such as education, religion and/or marital status. In addition to the two techniques, binary logistic regression analysis was also carried out to determine factors associated with having a circumcision, and those associated with supporting the promotion of VMMC for HIV prevention.

Results

Sample Characteristics

The nature of this study deliberately targeted men to gather information on their support for VMMC for HIV prevention. It is therefore not surprising that men constituted 73 percent of the sample. Generally, the whole sample was young with a combined mean age of 29.9 years. The average age for men and women was 30.5 years and 28.2 years respectively. Fifty four percent of the entire sample was in the age category of 18-29 years. The majority of respondents (60 percent) reported that they are married or living together while 33 percent had never married. In terms of education, 96 percent of the respondents had at least a secondary education.

Respondents were also categorised according to their religion and employment status. While there were several categories on the variable "religion", these were later collapsed into only two because the majority of respondents (83 percent) reported that they belong to a Christian denomination while the remainder reported to be Muslims (0.6 percent), atheists (8 percent), traditionalists (0.6 percent) or "other" (7 percent). In terms of employment, the majority of respondents (56 percent) reported to be self-employed while 28 percent reported to be in formal employment. The characteristics of respondents are summarised in Table 1.

Table 1: Socio-demographic characteristics of male and female respondents, Zimbabwe

Background Characteristic		Percent (%)	Number (n=681)
Age Group			
	18-29	54.0	368
	30-39	32.9	224
	40-49	13.1	89
Sex			
	Male	73.3	499
	Female	26.7	182
Marital Status			
	Never married	33.8	230
	Married/Living together	60.2	410
	Formerly married	6.0	41
Level of Education			
	Primary	4.0	27
	Secondary	80.6	549
	Tertiary	15.4	105
Religion			
	Christian	83.3	567
	Other	16.7	114
Employment Status			
	Formally employed	28.6	195
	Self-employed	56.8	387
	Unemployed	11.6	79
	Dependant	2.9	20
Total		**100.0**	**681**

Access to Information

The present study examined respondents' access to different sources of information on HIV and voluntary medical male circumcision. It was felt that this could give a proxy of how informed people are with the VMMC programme. The research instrument required respondents to indicate whether or not they had ever come across information on VMMC from the various sources that were listed. Results show that the radio, the television and billboards were the most cited sources of information for both women and men while the church was the least cited. What is interesting is that fewer women than men reported to have come across information on VMMC from all the sources except "other".

Prevalence of Male Circumcision

This study also attempted to establish the prevalence of male circumcision among men by asking them if they are circumcised. Also of interest was the prevalence by type of circumcision, the person who did the circumcision, the age at which the circumcision was done and the reason for doing the circumcision. Of the 499 men who were interviewed during this study, only 79 reported that they are circumcised representing a 15.8 percent circumcision prevalence rate. Forty percent of respondents who reported to have undergone circumcision were circumcised under the current promotion of VMMC for HIV prevention followed by those who were circumcised for religious or cultural reasons (33 percent). Twelve percent of the circumcised men reported to have had a circumcision for medical reasons.

Sixty percent of all the reported circumcisions were done at a hospital or a clinic while 23 percent of them were done at home. The remaining circumcisions were done at church/mosque (7.4 percent), at an initiation school (7.4 percent) or elsewhere. Almost 62 percent of the reported circumcisions were done by a doctor while 34.4 percent were done either by a family member, a church elder/mohel, or an initiation instructor. The mean age at circumcision was found to be 18.9 years while the modal age at circumcision was 15 years.

Knowledge of VMMC for HIV Prevention

One of the aims of this study was to examine knowledge of male circumcision among respondents. In particular, research participants were asked if they have ever heard about circumcision for HIV prevention. The majority of both men and women (97 percent and 96.7 percent respectively) reported to have heard about VMMC for HIV prevention. To further test knowledge about VMMC for HIV

prevention, participants were asked if they knew the following:

(a) That male circumcision does not provide 100 percent protection against HIV
(b) That a circumcised man has to use a condom; and
(c) That a circumcised man has to abstain from sex for 6 weeks to allow complete healing.

A binary logistic regression analysis was performed to assess if there are significant differences between men and women on their level of knowledge about VMMC for HIV prevention. The results show that males are generally more knowledgeable about VMMC for HIV prevention compared to women based on the three indicators outlined above.

Further regression analysis was done to examine other factors associated with knowledge about VMMC for HIV prevention. The adjusted and unadjusted odds ratios for knowledge that a circumcised man must use condoms for HIV prevention are presented in Table 2. Results show that respondents with a secondary education and above were likely to be knowledgeable about condom use after undergoing circumcision than those with just a primary education. Also, men who are not circumcised were significantly less likely to know that a circumcised man must use condoms for HIV prevention. Other background factors such as the age group, religion or marital status were not significantly associated with knowledge about use of condoms after undergoing a circumcision. Finally, respondents were asked if they knew a place where circumcisions were done. Fifty seven percent of respondents reported that they knew a place where they could go and get themselves or their son(s) circumcised. A larger proportion of men, 62.7 percent compared to 37 percent of women, reported that they knew a place where men can get circumcised.

Table 2: Factors associated with knowledge that a circumcised man must use condoms for HIV prevention among circumcised and uncircumcised men in Zimbabwe

Variable	Unadjusted Odds ratio	Adjusted Odds Ratios
Level of education		
Primary	1.000	
Secondary	23.38*** [5.87-93.0]	24.81*** [3.61-170.6]
Tertiary	7.793*** [2.42-25.1]	7.736*** [1.83-32.6]
Age		
18-29	1.000	
30-39	1.152 [0.63-2.09]	2.234 [0.83-6.03]
40-49	0.602 [0.48-1.58]	0.924 [0.35-2.44]
Religion		
Christians	1.000	
Other	1.036 [0.61-1.78]	0.701 [0.37-1.34]
Marital status		
Never married	1.000	
Married/Living together	0.765 [0.38-1.79]	0.705 [0.17-2.87]
Formerly married	0.884 [0.39-1.99]	0.843 [0.22-3.25]
Circumcision status		
Circumcised	1.000	
Not circumcised	0.236* [0.07-0.77]	0.234* [0.07-0.78]

*p<0.05, **p<0.01, ***p<0.001 (n=681 except for "**circumcision status**" where n=499)

Acceptability of VMMC for HIV prevention

The promotion of medical male circumcision for HIV prevention in many parts of sub-Saharan Africa is a relatively new phenomenon, particularly in countries where male circumcision was not widely practiced. Zimbabwe is one such country. It is therefore not surprising that many studies on male circumcision have focussed on the acceptability of VMMC for HIV prevention. This study is no exception. In this study, acceptability of male circumcision was measured using several items on the questionnaire. Respondents were asked firstly if VMMC should be promoted for HIV prevention. This was a question meant to solicit a general impression on the promotion of VMMC for HIV prevention from respondents.

The second item on the questionnaire solicited perceived acceptability of VMMC for HIV prevention by men. Respondents were asked if they thought men would accept circumcision as a method of HIV prevention. In addition to the general and the perceived support for VMMC, respondents were asked if they would personally support the promotion of VMMC for HIV prevention. This should not be interpreted to have meant willingness to get circumcised but rather having a personal conviction that VMMC should be promoted for HIV prevention. Furthermore, the 323 respondents who reported that they have a son(s) were asked if they were willing to have their son(s) circumcised for HIV prevention. Finally, research participants were asked to suggest the best age at which circumcision should take place. Responses to these questions were compared for men and women and also against different background factors. This analysis was meant to determine if there are statistically significant variations in the acceptability of MC for HIV prevention among men and women and also along other demographic and socio-economic variables.

The findings of the study show a general support for the promotion of male circumcision for HIV prevention. Seventy-six percent of men and 84.1 percent of women who were interviewed said that VMMC should be promoted for HIV prevention. The differences in support for VMMC between men and women was examined statistically using the chi-square test and found to be significant for the first indicator on whether VMMC should be promoted for HIV prevention [$\chi2(1)=5.14$, $p<0.05$] and on whether respondents would personally support VMMC for HIV prevention [$\chi2(2)=15.0$, $p<0.01$]. There were no statistically significant differences in support for VMMC by level of education, religion or marital status.

Attitudes toward VMMC for HIV Prevention

The present study sought information on respondents' degree of agreement or disagreement with twenty given statements. These statements represented attitudes and perceptions toward different aspects of male circumcision such as perceptions on pain, women's involvement, condom use after circumcision and perceptions on service providers. The degree of agreement or disagreement was measured using a Likert scale. A figure of 1 or 2 represented strong agreement or agreement with a given statement respectively while a 4 or 5 represented disagreement and strong disagreement respectively. A 3 represented a "don't know". For analysis purposes, the Likert-scale scores were initially treated as continuous data. Consequently, a mean and standard deviation for each statement was computed with a view to establishing the pattern of responses. A mean score of 1 or 2 indicates agreement with a given statement while a mean score of 4 or 5 indicates disagreement. A mean score of 3 indicate that the majority of respondents did not know whether to agree or disagree with a statement. The obtained means were rounded off to the nearest whole number for ease of interpretation.

An analysis of the mean scores show that respondents generally agreed with six of the twenty statements. They agreed that circumcision is painful; that it improves genital cleanliness; that it reduces the chances of getting STIs and HIV; and that women should be involved in the decision to get a circumcision for HIV prevention. There also seems to be consensus among respondents that VMMC may lead to a false sense of security thus promote promiscuity. Respondents disagreed with five of the statements, that is, that circumcised men are stigmatised in the community; that abstaining for 6 weeks after undergoing MC is not achievable; that women should not talk about VMMC for HIV prevention; that circumcised men should not be expected or be forced to use condoms; and that the government should focus on existing methods of HIV prevention than promote VMMC.

In the second stage of analysing perceptions and attitudes on VMMC for HIV prevention, responses to five statements dealing with issues such as abstaining for 6 weeks after VMMC, perception of risk after circumcision, women's involvement, comprehension of information on VMMC and condom use after VMMC were transformed in SPSS by generating dummy variables and regrouping the observed responses into 3 categories of "accept", "reject" and "don't know". The generated variables were then cross-tabulated with background factors such as the sex of respondents, level of education and marital status. A chi-square test was performed to investigate

if there were statistically significant variations by background factors. The results indicate significant variation by sex on four of the five statements as shown in Table 3. No statistically significant variations by age group, marital status or level of education were observed.

Table 3: Attitudes associated with VMMC among men and women in Zimbabwe

Perception	Response categories	Sex of respondents		Total (%) n=681	χ^2 *and p*-values
		Male (%) n=499	Female (%) n=182		
Abstaining for 6 weeks after circumcision is unrealistic	*Accept*	22.6	15.4	20.7	$\chi^2(2)=14.79$ p=0.001***
	Reject	75.8	78.0	76.4	
	Don't know	1.6	6.6	2.9	
Circumcision may lower risk perception thus promote promiscuity	*Accept*	67.1	81.9	71.1	$\chi^2(2)=21.84$ p=0.000***
	Reject	30.9	13.7	26.3	
	Don't know	2.0	4.4	2.6	
Women should be involved in the decision to get circumcised	*Accept*	78.6	97.8	83.7	$\chi^2(2)=36.96$ p=0.000***
	Reject	18.6	1.1	14.0	
	Don't know	2.8	1.1	2.3	
Information on VMMC is difficult to understand	*Accept*	32.3	36.3	33.3	$\chi^2(2)=2.14$ p=0.362
	Reject	65.1	62.2	64.5	
	Don't know	2.6	1.1	2.2	
Circumcised men should not be expected or forced to use condoms	*Accept*	18.6	3.8	14.7	$\chi^2(2)=26.70$ p=0.000***
	Reject	79.2	90.7	82.2	
	Don't know	2.2	5.5	3.1	

*p<0.05, **p<0.01, ***p<0.001

Willingness to get a circumcision

All men who participated in the study were asked if they were willing to take time away from work in order to get circumcised for HIV prevention. They were also asked if they thought their employers or their work would allow them to take time off to get a circumcision. Furthermore, participants were asked if they would be willing to use a condom after undergoing circumcision for HIV prevention. Men who reported that they were circumcised were excluded during the analysis stage thus remaining with 420 men. The results show that the majority of men (56.7 percent) were not willing to take time off their work to have a circumcision for HIV prevention. Similarly, the majority of men (58.8 percent) were pessimistic that their employers/work would allow them time off to get a circumcision for HIV prevention.

Further analysis of men's willingness to take time away from work to get a circumcision was done using the Fisher's Exact Test. The purpose of this further analysis was to establish whether willingness is significantly associated with background variables and other factors such as perceived risk of getting infected with HIV, knowledge of current HIV status, perceived advantages of VMMC and knowledge of a place offering circumcision services. The analysis showed that willingness is not associated with the level of education (p=0.829), employment status (p=0.628), perceived risk of getting infected with HIV (p=0.383), and knowledge of current HIV status (p=0.146). However, willingness was significantly associated with the perceived advantages of VMMC for HIV prevention (p=0.016) and knowledge of a place offering VMMC services (p=0.003).

Discussion and conclusion

The purpose of this study was to investigate people's knowledge, acceptability and willingness to get circumcised for HIV prevention. The study also attempted to establish the prevalence of male circumcision by type.

The findings of this study suggest that exposure to messages on VMMC is very high because most of the respondents reported having ever heard about the procedure. The radio, television, newspapers and billboards were the most cited sources of information on VMMC. These findings are consistent with earlier findings by Hatzold et al (2014). The present study also established that knowledge of VMMC among

men is fairly good. However, there are statistically significant differences in knowledge of VMMC between men and women. This gap in knowledge among men and women can have negative implications for the VMMC roll-out programme because women who are supposed to give a supportive role to men are less knowledgeable about VMMC. The lack of knowledge among women makes it difficult for them to encourage men to have a circumcision. A study by Hatzold et al (2014) cited lack of partner support as one of the factors that prohibited men from getting circumcised. It is possible that this lack of support from female partners could be a result of insufficient knowledge on VMMC among women. There is thus a need to come up with promotional strategies that specifically target increasing women's knowledge of VMMC.

On support for the promotion of VMMC for HIV prevention, the study's findings are in line with earlier findings by Mavhu et al (2011) and with findings from elsewhere (e.g. Macintyre et al, 2014) which show that there is support for VMMC as an additional HIV prevention strategy. While there is a general support for VMMC among men and women in the sample, two important observations are worth noting about this. Firstly, support for VMMC among men declines when questions are made more personal than when they are generalised. Secondly, support for VMMC on some indicators is higher among women than men. These glaring differences bring to the fore the fact that acceptability and support for VMMC promotion may not translate to uptake of the procedure. Despite this gap, about 43 percent of male respondents who reported to be uncircumcised were willing to get circumcised. In a similar study by Hatzold et al (2014), about 49 percent of uncircumcised respondents were also reported to be willing to get circumcised. The number of men who are willing to get circumcised is very encouraging given that the upscaling of VMMC is still fairly recent. There is need to translate this willingness to actual uptake. During this process the partial protective nature of circumcision should be emphasized taking into account findings from Botswana which show an association between willingness to get circumcised and engaging in risky sexual behaviours (Keetile and Rakgoasi, 2014).

The prevalence of male circumcision of 15.8 percent found in this study is slightly higher than prevalence rates found in national surveys such as the 2010-11 ZDHS (9.1 percent) and the 2014 Multiple Indicator Cluster Survey (11.2 percent). A study by Mavhu et al (2011) in rural Zimbabwe found a prevalence rate of 20 percent. While there are variations in prevalence rates among different studies, these can be explained by differences in sampling. What is particularly significant about the circumcision prevalence in this study is that most of the circumcisions were done in a medical setting and that a significant proportion of circumcised men were circumcised under the current promotion of VMMC. This supports an earlier assertion that the upscaling of VMMC is having an impact albeit at a slower rate than desired.

Given the gap between support for VMMC and willingness to get circumcised, there is a need to move beyond mere support for VMMC to research that is focused on understanding the dynamics underlying the decision to get a circumcision. There is also a need to take into account the context within which decisions to get circumcised are made because in an environment where many people are self employed such as is the case in many parts of Zimbabwe, putting food on the table may overtake the desire to get circumcised for HIV prevention.

Competing interests:

The authors declare that there are no competing interests.

Author contributions:

AC conceived the study and led the data analysis and writing process.

PM substantially contributed to the writing and reviewing of the paper.

All authors read and approved the final manuscript.

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