

# Personal Factors Affecting the Uptake of Voluntary Medical Male Circumcision among Sexually Active Male Populations in Busia County, Kenya

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**Abstract:** The aim of the study was to investigate the personal factors that affect the uptake of voluntary medical male circumcision among the sexually active populations in Busia County, Kenya. The study adopted a mixed methods research design. The researcher targeted males enrolled in three government funded institutions (Bumbe Technical Institute, Nangina Youth Polytechnic and Namasali Youth Polytechnic) based in Funyula Sub-County which was chosen since the predominant community living in this area-the Samia, don't practice male circumcision. Simple random sampling technique was applied to select males who were issued with questionnaires and included in the final research sample. A total of 249 males participated in the research. The researcher was able to establish that personal factors especially beliefs and attitudes of the Samia community affected the uptake of voluntary medical male circumcision which has been rolled out by government and non-governmental institutions with the objective of reducing the HIV/AIDs infections in the country.

**Index Terms-** Male Circumcision, HIV/AIDs, VMMC

## Introduction

Health knowledge level is associated with health literacy, which is the capacity to obtain process and understand basic health information and services needed to make appropriate health decisions (Ratzan & Parker, 2000) as such, it plays an important role in disease prevention, for example, the spread of HIV and AIDs through the understanding of risks and identification of necessary behavioural changes. Closely related to health knowledge are behavioural intentions and attitudes. A particular behaviour is most likely to occur if a person has a strong intention to perform it among other factors (Fishbein & Ajzen, 2010). If people believe that performing a particular behaviour is a good thing, then they are more strongly motivated actually to perform the behaviour than if they believe that performing the behaviour is a bad thing. Another important construct of personal factor is self-efficacy and perceived control. Perceived control is one's perceived amount of control over behavioural performance, determined by one's perception of the degree to which various environmental factors make it easy versus difficult to carry out the behaviour. In contrast, self-efficacy is one's degree of confidence in the ability to perform the behaviour in the face of challenges. According to (Hatzold, et al., 2014), the strongest predictor of VMMC uptake is self-efficacy where

men with high levels of self-efficacy (one's belief that one can make the decision to go for Voluntary Medical Male Circumcision (VMMC) were eight times more likely to be circumcised than men with low levels of self-efficacy. The research therefore among other issues sought to establish various attitudes and beliefs among the respondents that could influence uptake of (VMMC) such as but not limited to safe sex practices, sexual performance perceptions, HIV status and fear of infidelity. Similar studies conducted reveal a link between personal factors such as fear of reduced sexual performance, being HIV positive, long abstinence period and fear of pain affecting uptake of VMMC (Rupfute, Tshuma, Tshimanga, Gombe, Bangure, & Wellington, 2014).

## Research Objective

The research study sought to investigate the personal factors that affect the uptake of voluntary medical male circumcision among sexually active male populations in Busia County, Kenya.

## Research Methodology

The research study utilized a mixed methods research design. The target population was sexually active male population aged 20 and 49 years and based in Busia County, Funyula Sub-County which was purposively selected because its residents are mainly Samia who are traditionally a non-circumcising community and the rates of HIV infection is relatively high. The researcher therefore targeted males enrolled in 3 tertiary institutions based in Funyula Sub-County where simple random sampling technique was applied to select the males who were then issued with questionnaires and included in the final research sample. A total of 249 males participated in the research. Two focus group discussions were held crucial so as to solicit respondents' attitudes, perceptions and experiences with the VMMC program in the region. Interviews were also conducted with 8 key informants from government and non-governmental institutions that are on the forefront matters VMMC in the area under study.

**Table 1: Safe Sex and VMMC**

	Frequency	Valid Percent
Strongly Agree	135	54.2
Agree	34	13.7
Not Sure	19	7.6
Disagree	27	10.8
Strongly Disagree	34	13.7

**Table 1: Safe Sex and VMMC**

	Frequency	Valid Percent
Strongly Agree	135	54.2
Agree	34	13.7
Not Sure	19	7.6
Disagree	27	10.8
Strongly Disagree	34	13.7
<b>Total</b>	<b>249</b>	<b>100.0</b>

A majority of the respondents at 54.2% were of opinion that if one practiced safe sex they didn't need to undertake voluntary medical male circumcision (Table 1) While it is not guaranteed that one would in their lifetime always practice safe sex, it would be vital that this personal belief is put in consideration while designing communication messages to be used when carrying out campaigns to promote VMMC. Similar study by (Nyaga, 2015) establishes that frequency of condom use during sexual intercourse decreased uptake of VMMC. It is imperative therefore that campaign strategists include in their messages such males who could lack a motivator to circumcise because they practice safe sex by emphasizing other benefits of VMMC such as improved sexual performance, hygiene and prevention of STIs among other benefits.

**Table 2: Unsafe Sex and VMMC**

	Frequency	Valid Percent
Strongly Agree	162	65.1
Agree	34	13.7
Not Sure	17	6.8
Disagree	12	4.8
Strongly Disagree	24	9.6
<b>Total</b>	<b>249</b>	<b>100.0</b>

Most respondents at 78.7% were in agreement that if one practiced unsafe sex they needed to undertake VMMC with 65.1% strongly agreeing and 13.7% simply agreeing (Table 2) According to (Mbonye, Kuteesa, Seeley, Levin, Weiss, & Kamali, 2016) VMMC in a number of African countries is being scaled up as a means to provide partial HIV protection which could be a reason why most respondents would vouch for VMMC especially where they engaged in unsafe sex. Communication messages need to clearly outline that undertaking VMMC doesn't guarantee complete protection against HIV/AIDS and other sexually transmitted diseases. A key informant from one of the organizations running VMMC campaigns had the following to say;

“Though the response has been good towards VMMC there is still a challenge in advocating for safe sex among those who get circumcised because there is a misconstrued belief that they cannot contract HIV yet condoms are readily available. More awareness campaigns need to be held to advocate for safe sex even after getting circumcised otherwise we will be fighting a losing battle.”

**Table 3: Monogamy and VMMC**

	Frequency	Valid Percent
Strongly Agree	159	63.9
Agree	30	12.0
Not Sure	18	7.2
Disagree	19	7.6
Strongly Disagree	23	9.2
<b>Total</b>	<b>249</b>	<b>100.0</b>

Most of the respondents at 75.9% were of view that if one was in a monogamous relationship then there was no need to undertake VMMC with 63.9% strongly agreeing and 12% simply agreeing. According to report by Action Catalyst Tools (malecircumcision.org, 2017) men in monogamous relationships may find themselves in a realm where they may not find the benefits of VMMC relevant to their present context thus fail to undertake in VMMC as they don't relate with it. It is important therefore to consider reframing communication messages targeting such men so as to focus on other benefits accruing from VMMC other than HIV protection as this may not resonate with men in monogamous relationships.

**Table 4: Polygamy and VMMC**

	Frequency	Valid Percent
Strongly Agree	151	60.6
Agree	13	5.2
Not Sure	40	16.1
Disagree	29	11.6
Strongly Disagree	16	6.4
<b>Total</b>	<b>249</b>	<b>100.0</b>

A majority of respondents at 60.6% strongly agreed that if one was in a polygamous relationship they needed to undertake VMMC. Though men in polygamous relationships are highly likely to participate in VMMC the overall objective it seeks to achieve of reduce new HIV infections may not be realized. (Mojola, 2011) notes that the practice of having multiple partners is associated with high risk behavior which though may influence uptake of circumcision may not avert HIV infections. Further, (Andersson, Owens, & Paltiel, 2011) note that belief in the efficacy of circumcision to provide protection among polygamous men may make even condom use less likely. Communication messages should clearly explain that VMMC only offers partial protection from HIV and therefore condoms should always be used when having sexual relations with multiple partners.

**Table 5: Sexual Performance Affected by VMMC**

	Frequency	Valid Percent
Strongly Agree	108	43.4
Agree	21	8.4
Not Sure	49	19.7
Disagree	26	10.4
Strongly Disagree	45	18.1
<b>Total</b>	<b>249</b>	<b>100.0</b>

More than half of the respondents at 51.8% agreed that sexual performance was affected if one undertook VMMC with 43.4% strongly agreeing and 8.4% simply agreeing. Considering that a majority of the respondents also reported not to be circumcised, there is a possibility that is one of the beliefs negatively impacting on them to partake in VMMC. The strategy that could be utilized could be using those already circumcised to avert this claim that getting circumcised could affect sexual performance. A research study by (Lissouba, et al., 2011) establishes that a majority of circumcised men report to have increased sexual performance after undergoing the procedure. Having such testimonials from circumcised men could help eliminate such beliefs on decreased sexual performance.

**Table 6: HIV/AIDS Infected and VMMC**

	Frequency	Valid Percent
Strongly Agree	157	63.1
Agree	14	5.6
Not Sure	31	12.4
Disagree	24	9.6
Strongly Disagree	23	9.2
<b>Total</b>	<b>249</b>	<b>100.0</b>

A majority of the respondents at 63.1% strongly agreed that those already infected with HIV/AIDS didn't require to undertake VMMC. It is critical to examine if this is a factor that could contribute to low number of men participating in VMMC programs. Fear of HIV tests has been a contributor to men shunning VMMC (Mbonye, Kuteesa, Seeley, Levin, Weiss, & Kamali, 2016). Communication messages targeting men to participate in VMMC should advise them also that free HIV testing accompanies the service and that there are available support programs for the infected. It should be communicated also that regardless of the HIV status, VMMC services are available on request even to the infected (MPHS-Kenya, 2009) as there are other benefits such as personal hygiene that come with circumcision. A 26 year old respondent from the focus group discussions who had undergone VMMC in 2014 had this to say about the procedure:

“When you get to the clinic, you are first of all counseled on health issues such as HIV and STIs. Then one is taken through counseling on what male circumcision entails and its advantages. After the counseling session and if one is ready to undergo MC, they are tested for HIV and other infections. Those who are found to be unwell are then treated for their ailments while those who are well are prepared for the surgery.

**Table 7: HIV Free and VMMC**

	Frequency	Valid Percent
Strongly Agree	159	63.9
Agree	26	10.4
Not Sure	39	15.7
Disagree	17	6.8
Strongly Disagree	8	3.2

**Table 7: HIV Free and VMMC**

	Frequency	Valid Percent
Strongly Agree	159	63.9
Agree	26	10.4
Not Sure	39	15.7
Disagree	17	6.8
Strongly Disagree	8	3.2
<b>Total</b>	<b>249</b>	<b>100.0</b>

A majority of the respondents at 63.9% strongly agreed that those who are HIV free should undertake voluntary medical male circumcision. One of the key highlights in VMMC campaigns is that circumcision reduces HIV infections among those who aren't infected which could explain the high awareness among respondents that those who were HIV free ought to be circumcised. Clinical trials and observational studies have consistently shown relationship of circumcision and reduction of HIV acquisition risk among heterosexual men (Semeere, Bbaale, Kigozi, & Coutiho, 2016). In addition to reducing HIV infections, communication messages targeting uncircumcised men need to include persuasion aspects such as other benefits accruing from circumcision so as to increase the numbers of men participating in the VMMC programs.

**Table 8: Personal Hygiene and VMMC**

	Frequency	Valid Percent
Strongly Agree	75	30.1
Agree	14	5.6
Not Sure	70	28.1
Disagree	53	21.3
Strongly Disagree	37	14.9
<b>Total</b>	<b>249</b>	<b>100.0</b>

A majority of the respondents at 36.2% weren't aware that VMMC improved personal hygiene; 14.9% strongly disagreed while 21.3% disagreed. A good number too at 28.1% were not sure if VMMC improved personal hygiene or not. Only 30.1% of the respondents were highly aware that male circumcision improved hygiene. This is a strategic benefit that ought to be embedded in persuasion messages to get more men to participate in VMMC programs. Post circumcision research studies reveal that one key factor that could increase uptake of VMMC is penile hygiene (Hermann-Roloff, Otieno, Agot, Ndinya-Achola, & Bailey, 2011)

**Table 9: VMMC Prevention of Cervical Cancer**

	Frequency	Valid Percent
Strongly Agree	88	35.3
Agree	29	11.6
Not Sure	51	20.5
Disagree	40	16.1
Strongly Disagree	41	16.5

**Table 9: VMMC Prevention of Cervical Cancer**

	Frequency	Valid Percent
Strongly Agree	88	35.3
Agree	29	11.6
Not Sure	51	20.5
Disagree	40	16.1
Strongly Disagree	41	16.5
<b>Total</b>	<b>249</b>	<b>100.0</b>

Though a good number of the respondents at 46.9% were in agreement that VMMC reduces a woman’s chance of getting cervical cancer with 35.3% strongly agreeing and 11.6% simply agreeing, there were those who seemingly didn’t know about this for sure at 20.5% while 32.6% had no idea that VMMC reduced cervical cancer. A similar study by (Hatzold, et al., 2014) indicates that knowledge on VMMC prevention of cervical cancer in women is a motivator to uptake of VMMC though some males didn’t know this. This knowledge can be applied to secondary audiences such as men’s spouses who can be crucial in encouraging their partners to be circumcised if they understand this inherent benefit of their men getting circumcised.

**Table 10: Infidelity and VMMC**

	Frequency	Valid Percent
Strongly Agree	114	45.8
Agree	32	12.9
Not Sure	28	11.2
Disagree	32	12.9
Strongly Disagree	43	17.3
<b>Total</b>	<b>249</b>	<b>100.0</b>

A majority of the respondents at 58.7% expressed fear of partner infidelity during the 6 week healing period. Having such doubts could negatively affect uptake of VMMC, research studies have established infidelity fears as a reason why most men refuse to get circumcised. (Evens, Lanham, Hart, Loolpait, Oguma, & Obiero, 2014) in their study for instance found out that both men and women expressed fear that their partners would be unfaithful during the 6 weeks of medically advised abstinence. This can only be addressed by engaging couples in pre-counselling activities to ensure that they hold each other accountable and adhere to the stipulations.

**Table 11: Correlations between Personal Factors and VMMC**

		Personal VMMC	Factors
VMMC	Pearson Correlation	1	.437**
	Sig. (2-tailed)		.001
	N	249	249
Personal Factors	Pearson Correlation	.437**	1

Sig. (2-tailed) .001  
N 249 249

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

A correlation analysis was conducted to establish the degree of linear association between personal factors and uptake of VMMC. The results shown in Table 11, Indicate that the Pearson correlation coefficient is (r=0.437, p=0.001), revealing a positive significant linear relationship between personal factors and uptake of VMMC since P<0.05. If respondents are highly aware of how various personal factors contributed positively to their wellbeing then they are likely to undertake VMMC. According to (Hatzold, et al., 2014), the strongest predictor of VMMC uptake is self-efficacy and that men with high levels of self-efficacy (one’s belief that one can make the decision to go for VMMC) were eight times more likely to be circumcised than men with low levels of self-efficacy.

**Table 12: Correlation between Education and Personal Factors affecting uptake of VMMC**

		Personal Factors	Education
Personal Factors	Pearson Correlation	1	.339**
	Sig. (2-tailed)		.000
	N	249	249
Education	Pearson Correlation	.339**	1
	Sig. (2-tailed)	.000	
	N	249	249

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

A correlation analysis was conducted to establish the association between education level and personal factors affecting uptake of VMMC. The results shown in Table 12, Indicate that the Pearson correlation coefficient is (r=0.339, p=0.000), revealing a positive significant relationship between education level and personal factors affecting uptake of VMMC since P<0.05. Low knowledge levels in various personal factors are likely to negatively affect uptake of VMMC and vice versa. It is imperative therefore, that when designing messages, education background of respondents is taken in consideration so that messages are designed in a simple way that effectively communicates.

**Conclusion**

The study concluded that uptake of VMMC was directly influenced by the beliefs and attitudes of the male population being studied. Beliefs such as sexual performance enhancement, protection from HIV/AIDs infections, and fear of partner infidelity among other personal factors affected uptake of VMMC depending on the understanding and knowledge level of the man; for instance if a man believed that their sexual performance would be compromised then there was high resistance to undertake male circumcision and vice versa. Addressing various attitudes and beliefs while designing campaign messages would help alleviate baseless fears that

hinder men from non-circumcising communities to participate in VMMC and increase its uptake.

### Recommendations

Campaign messages need to address various attitudes and beliefs that could hinder uptake of VMMC among the non-circumcising communities so as to increase its uptake. VMMC campaign messages ought to be designed in a simple way that effectively communicates while considering the different recipients diverse backgrounds.

The media similarly needs to shift from awareness campaigns strategy to informative and persuasive campaigns strategy so as to increase uptake of VMMC. There is need to engage the media to provide the society with the correct information about VMMC. Information is power and will be vital in eliminating attitudes and beliefs that prevent men from participating in VMMC programs.

### References

- Andersson, K., Owens, D., & Paltiel, A. (2011). Scaling up circumcision programs in southern Africa: The potential impact of gender disparities and changes in condom use behaviors on heterosexual HIV transmission. *AIDS and Behavior*, 938-948.
- Evens, E., Lanham, M., Hart, C., Loolpapit, M., Oguma, I., & Obiero, W. (2014). Identifying and Addressing Barriers to Uptake of Voluntary Medical Male Circumcision in Nyanza, Kenya among Men 18-35: A Qualitative Study. *PLOS One*.
- Fishbein, M., & Ajzen, L. (2010). Predicting and Changing Behavior: The Reasoned Action Approach. *Network: Psychology Press*.
- Hatzold, K., Mavhu, W., Jasi, P., Chatora, K., Cowan, F. M., Taruberekera, N., et al. (2014). Barriers and Motivators to Voluntary Medical Male Circumcision Uptake among Different Age Groups of Men in Zimbabwe: Results from a Mixed Methods Study. *Plos One*, 1-7.
- Hermann-Roloff, A., Otieno, N., Agot, K., Ndinya-Achola, J., & Bailey, R. (2011). Acceptability of medical male circumcision among uncircumcised men in Kenya one year after the launch of the national male circumcision program. *Plos One*, e19814.
- Lissouba, P., Taljaard, D., Dermaux-Msimang, V., Legeai, C., Lewis, D., Singh, B., et al. (2011). Adult male circumcision as an intervention against HIV: An operational study of uptake in a South African Community. *BMC Infectious Diseases*, 253.
- malecircumcision.org. (2017). *VMMC Behavioral Framework: Lessons from Quantitative and Qualitative Market Research*. malecircumcision.org.
- Mbonye, M., Kuteesa, M., Seeley, J., Levin, J., Weiss, H., & Kamali, A. (2016). Voluntary Medical Male Circumcision for HIV prevention in Fishing Communities in Uganda: The Influence of Local Beliefs and Practice. *African Journal of AIDS Research*, 211-218.
- Mojola, S. (2011). Fishing in dangerous waters: Ecology, Gender and Economy in HIV risk. *Social Science and Medicine*, 149-156.
- MPHS-Kenya. (2009). *Kenya National Health Strategy for Voluntary Medical Male Circumcision*. Nairobi: Ministry of Public Health and Sanitation-Kenya.
- Nyaga, E. M. (2015). *Factors Associated With Uptake Of Voluntary Medical Male Circumcision Among Men Aged 18-50 Years In Kibera Sub-County, Nairobi County*. Nairobi: Unpublished Thesis.
- Ratzan, & Parker. (2000). Introduction. In: National Library of Medicine Current Bibliographies in Medicine: Health Literacy. *National Institutes of Health, U.S. Department of Health and Human Services*.
- Rupfutse, M., Tshuma, C., Tshimanga, M., Gombe, N., Bangure, D., & Wellington, M. (2014). Factors associated with uptake of voluntary medical male circumcision, Mazowe District, Zimbabwe, 2014. *The Pan African Medical Journal*.
- Semeere, A. S., Bbaale, D. S., Kigozi, J., & Coutiho, A. G. (2016). Innovative Demand Creation for Voluntary Medical Male Circumcision Targeting a High Impact Male Population: A Pilot Study Engaging Pregnant Women at Antenatal Clinics in Kampala, Uganda. *Journal of Acquired Immune Deficiency Syndrome*, 278-284.