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A STUDY ON KNOWLEDGE, ATTITUDE AND PRACTICES TOWARDS SAFE MALE CIRCUMCISION AMONG YOUTH RECEIVING MEDICAL SERVICES AT LUGASA HEALTH CENTRE III, KAYUNGA DISTRICT. A DESCRIPTIVE CROSS-SECTIONAL STUDY.

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Abstract

Background:

Objective: To determine youth's knowledge about safe male circumcision as well as assess their attitude towards utilization of safe male circumcision services and also determine the practices in utilization of safe male circumcision at Lugasa Health Centre III.

Methodology:

The study was a descriptive cross-sectional study involving 88 respondents who were youth males aged 15-40 years at Lugasa HCIII in Kayunga District selected by simple random sampling technique and the data was collected by the use of self-administered questionnaires after informed consent of the respondents. Data was entered in MS Excel and analyzed, and descriptive statistics such as frequency and percentages were used to present data on figures, charts, and tables.

Findings:

The majority of the respondents (97.5%) had never heard about SMC and had obtained information from the VHTs (41.25%). Promoting penile hygiene was the most popular (65%) reason for SMC, over half (52.5%) informed that SMC reduces the risk of HIV infection by 60%. The greatest number of respondents (95%) knew where SMC services can be accessed. The majority (74%) strongly agreed that circumcised males are liked by most women. Most of the respondents (58.75%) were circumcised, with 35% circumcised between 10-19 years of age. Health workers conducted the majority of the circumcision procedures (42.5%) and the majority of the circumcised males (35%) received paracetamol for pain management, and the least (16.25%) were screened for STIs.

Conclusion:

The respondents had good knowledge regarding safe male circumcision and equally had a positive attitude towards safe male circumcision which resulted in favorable practices of utilization of safe male circumcision.

Recommendation:

The VHTs should be included to take part in the continuous medical education programs that are conducted regularly at Lugasa HCIII as they are most in contact with the community to spread updated information about safe male circumcision to society.

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1. Background of the study.

Safe Male Circumcision also known as Voluntary medical male circumcision is the permanent surgical removal of the foreskin of the penis by competent health care providers with consent from the male. MC can be performed by several conventional or device-based surgical methods It is stated to reduce heterosexual transmission of HIV by 60%. (World Health Organization, 2018) The WHO and the United Nations Program on HIV/ AIDS recommend SMC for countries with generalized HIV epidemics and low prevalence of MC that it is an important part of a comprehensive HIV prevention package. Unfortunately, these are African countries especially SSA, which carry 88% of the world's HIV prevalence. (World Health Organization, 2021)

Globally SMC rates are from 4.4% in Mongolia, 9% in Japan, 11.8 % in Russia, and 20.7% in the United Kingdom, to 71.2% in the United States, to beyond 85% in the majority of countries that embrace the Islamic religion. Worldwide it is estimated that 35% to 40% of males are circumcised, with almost 70% of those being Muslims. (Morris et al., 2016)

In Africa, as countries proximate to 80% coverage of SMC for those aged 15–49 years, prioritizing youth is critical to SMC sustainability. Nine studies centering on specifically adolescent SMC programs and services, eight of these studies established how well adolescents reached with WHO's minimum package for comprehensive HIV prevention in the countries South Africa, Zimbabwe, and Tanzania, analyzing motivation, counseling, wound healing, parental involvement, female peer support, quality of in-service communication, and providers' perceptions, and models for achieving high SMC coverage by 2021. (Lane et al., 2018) The results from three large randomized clinical trials that were already confirmed in Kenya, Uganda, and South Africa in 2007 were published, showing that medically performed circumcision is safe and can reduce men's risk of HIV infection by 60% based on this evidence Mozambique MOH set an 80% MC coverage that was achieved among males aged 15-24 at SMC prevalence of 90.2% by 2019. (Hines et al., 2021) this success would save the country $6,034 per new HIV infection using epidemiological model results from South Africa.(Korenromp et al., 2021)

In East Africa, the prevalence of HIV in western Kenya remained among individuals aged 15-34 years with an average of 11% from the years 2011 to 2016 after implementation with

increasing coverage of VMMC and ART services in the region. The same trend is observed in Siaya County between 2011 and 2016 where the HIV prevalence dropped significantly as SMC was suggested to have a direct positive effect on HIV prevention. (Borgdorff et al., 2018)

In Uganda, by the end of 2015 the country's MOH aimed to circumcise 80% of men aged between 15 and 49. But between 2008 and 2013 the country only managed to circumcise 50% of this population. Most of these were young boys. However, research shows that religious and cultural beliefs compete with the medical messages about the purpose of circumcision. This makes it difficult for men to decide whether or not to be circumcised medically and also affected the way they behaved afterward the fishing community's utilization of SMC is very low as 79.3% did not even know where VMMC services are offered. (Lubogo et al., 2019)

1.1. The general objective of the study .

To assess knowledge, attitude, and practices towards safe male circumcision among youths receiving medical services at Lugasa Health Centre III Kayunga District.

1.2. Specific objectives.

- To determine the knowledge towards safe male circumcision among youths receiving medical services at Lugasa Health Centre III Kayunga District.
- To assess the attitude of youth towards safe male circumcision receiving medical services at Lugasa Health Centre III Kayunga District.

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- To assess the practices of youth towards safe male circumcision receiving medical services at Lugasa Health Centre III Kayunga District.

2. METHODOLOGY.

2.1. Study Design.

The study employed a descriptive cross-sectional design involving quantitative data collection techniques. A descriptive cross-sectional study was selected because it helps in the fast collection of data in a very short time from respondents.

2.2. Study Area.

The study was conducted at Lugasa Health Centre III. The Health facility is located in Kayonza Sub-county which is 17.4 km from Kayunga District Headquarters. The study will be conducted from December 2022 to February 2023 for two months.

2.3. Study Population.

The study focused on the youth in particular the males aged 15 to 40 years receiving health services during the time of data collection at Lugasa Health Centre III in Kayonza Sub county, Kayunga District.

2.4. Sample Size Determination.

The study sample size was calculated using statistical formulae for sample size estimation by Kish Leslie, (1965)

where n is the sample size,

Z Is a constant confidence level, eg , 95% , corresponding to 1 96

P is the estimated proportion of an attribute that is present in the population (26) and d is the desired level of 5%

Z = 1.96

P = 26% = 0.26

d = 5% = 0.05

$$n = \frac{1.96^2 \times 0.26\,(1-0.26)}{0.05 \times 0.05}$$

$$n = \frac{3.8416 \times 0.26(0.74)}{0.0025}$$

$$n = \frac{0.739124}{0.0025}$$

n =296

Therefore, 296 respondents were determined to participate in the study.

However due to limitations in time and financial constrain, 80 participants were selected to participate in the study.

2.5. Sampling techniques.

A non-probability sampling method was applied using convenience sampling to select youth males receiving medical services at Lugasa Health Centre III.

2.6. Sampling Procedure.

The data collection was carried out using a quantitative technique whereby participants for structured questionnaires were interviewed.

Data was collected using a pre-tested structured questionnaire.

The questionnaire included both open and closed-ended questions to allow respondents to give their views without being influenced by their fellows.

2.7. Data Collection Method.

Data was collected using questionnaires to evaluate the youths' knowledge, attitude, and practices on SMC in Lugasa. The questionnaire was used because it ensures a high response rate and it requires less time and energy to administer.

2.8. Data collection tools.

A structured questionnaire was used as the main tool for gathering information. The structured questionnaire was preferred in this study because a lot of information can be collected over a short period. The structured questionnaire was divided into four sections: The first section was used to collect data about the socio-demographic profile, that is to say, age, religion, occupation, and others.

The second section explored the general knowledge about SMC. The third section assessed the attitude of youth towards SMC and the last section explored the practices of youth.

2.9. Data collection procedures.

Data was collected using the interview technique. The interview technique was used because the study is concerned with variables that could not be directly observed such as knowledge, attitudes, and practices on practices on SMC. Furthermore, the investigator has control over the line of questioning and could obtain historical information.

Therefore, all this information could best be collected using the interview technique.

2.10. Study Variables.

2.10.1. Dependent Variable.

Practices towards SMC services among youth receiving medical services at Lugasa Health Centre III, Kayunga District.

2.10.2. Independent variable.

The independent variables in this study are; Knowledge and Attitude towards SMC among the youth receiving medical services at Lugasa Health Centre III, Kayunga District.

2.11. Quality control.

A research assistant was recruited and trained to administer pretested questionnaires. The skills of the health assistant helped in piloting further responses. The respondent's identity is kept anonymous as they did not writes their names. Questionnaires were pretested to check for their validity and accuracy for which adjustments were made before being administered to the target study participants. Rephrasing some of the questions was done to clarify the questions and more appropriate alternative response choices were included to the closed-ended questions to provide meaningful data.

2.12. Inclusion criteria.

The study included all males between 15-40years who were available at the health center and consent to participate in the study.

2.13. Exclusion Criteria.

The study excluded all females and also males below 15 years and those above 40 years together with those who did not consent or require to be paid to participate in the study.

2.14. Data analysis and presentation.

After the data collection, data was edited to check for double entries and missing information, data coding was done, data was entered in Microsoft Excel, and data cleaning and analysis. Data was analyzed and presented in the form of tables, graphs, pie charts, and text.

2.15. Ethical considerations.

On approval by Medicare Health Professionals College Review Committee, written permission to conduct the research study was obtained from the Department of Clinical Medicine introducing the researcher to Lugasa Health Centre III who in turn authorized the researcher by authentication of an introductory letter from the Department of Clinical Medicine Medicare Health Professionals College or by provision of an introductory letter to the Local council authorities.

The consent of the participants was sought with informed written consent before the study was conducted. The researcher gave a full explanation of the research procedures to the participants, who understood it. Consent forms made were used to seek written consent before interviewing. The information given is to be kept confidential. The names of the participants are not included in the report. The participation was voluntary and one was free to withdraw from the research at any time without any punishment or loss of benefit.

3. RESULTS

3.1. *Socio-demographic characteristics of the respondents.*

The socio-demographic characteristics of the respondents included; the age of the respondents, level of formal education, marital status, and religion as regards to the study.

Table 1 shows that out of the 80 male participants, the majority 32 (40%) were aged between 21-29, most 46 (57.5%) being single. The highest number 33 (41.25%) had primary level of education with the popular 61 (76.25%) being Christians.

3.2. *Knowledge towards Safe Male circumcision among youth.*

Source: Primary Data (2023)

Table 2 shows that most of the respondents 78 (97.5%) had ever heard about SMC, majority 33 (41.25%) acquired the information from VHT members followed by 26 (32.5%) from health workers and only 1 (1.25%) read from newspapers.

Figure 1 shows promoting penile hygiene and prevention of acquisition of other STIs as the major reasons reported by the participants from the various sources of information with 52 (65%) and 49 (61.25%) respondents respectively, over half 42 (52.5%) were informed that SMC reduces

The risk of HIV infection by 60% and only 7 (8.75%) educated on the importance of avoiding transmission of cervical cancer.

Figure 2 shows that majority of the respondents 76 (95%) knew where SMC services can be accessed while 4 (5%) did not know where to get access to SMC services.

3.3. *Attitudes towards safe Male Circumcision among youth.*

Attitudes of youth towards SMC was evaluated using scale parameter, where various parameters concerning SMC as either disagreed, agreed or strongly disagreed towards what is said about each specific parameter. Whereas about packages and practices in SMC, the respondents viewed them as being not good, good or very good.

From table 3, over 3 quarters of the respondents 59 (74%) and 10 (12%) agreed and strongly agreed respectively that SMC reduces risk of acquisition of HIV by 60%, none of the respondents 0 (0%) did not disagree with statement that SMC improves penile hygiene and majority 59 (74%) strongly agreed that circumcised males are liked by most women.

On the hand, with regard to what is considered negative about outcomes of SMC, majority of the respondents 61 (76%) and 66 (83%) disagreed with the statements SMC reduces the length of the penis and circumcision reduces penile sensitivity respectively, however over half 51 (64%) and 15 (19%) agreed and strongly agreed respectively with the statement that SMC is very painful.

Table 4 shows that majority of the respondents 45 (56%) considered circumcision under local anaesthesia as being very good, two thirds 53 (66%) stated that stitching post SMC wound being good. Equally, post SMC pain management using paracetamol was considered good and very good by 32 (40%) and 45 (56%) of respondents respectively.

Figure 3 shows that majority of the respondents 72 (90%) said that they would utilize SMC services if the chance is availed while 8 (10%) were not willing to consume SMC services.

3.4. *Practices towards Safe Male Circumcision among youth.*

Figure 4 shows that over half 47 (58.75%) of the respondents were circumcised with 34 (72.34%) safe male circumcisions at health facilities, whereas 33 (41.25%) were not circumcised.

Table 5 shows that majority of the respondents 28 (35%) were circumcised between 10-19 years of age followed those circumcised below 10 years 11 (13.75%) while none of the males that participated was circumcised at the age of 30 and above.

Males Circumcised by health workers were the majority 34 (42.5%), 4 (5%) of the respondents did not know who carried out the circumcision procedure and only 1 (1.25%) were circumcised by the parent/relative.

Figure 5 shows that only 13 (16.25%) respondents circumcised were screened for STIs with 14

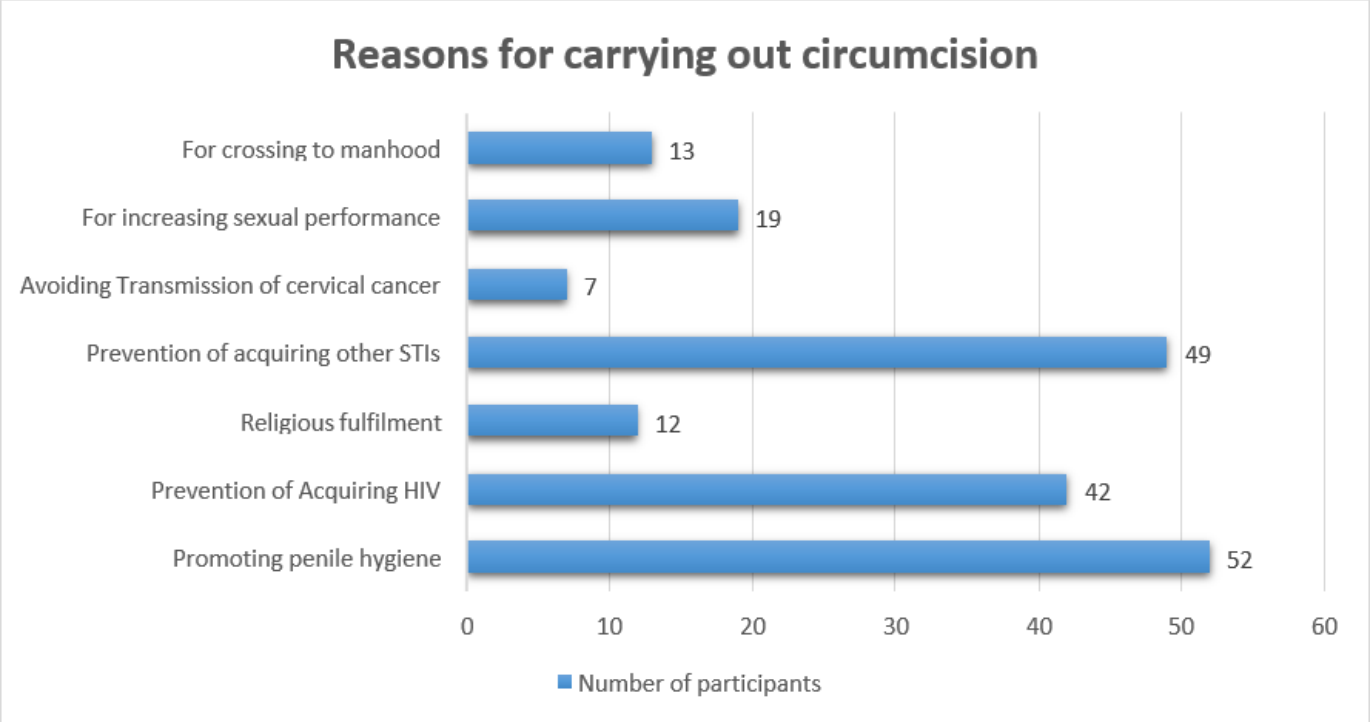

Figure 1: Shows importance of SMC from the various sources of information n=80

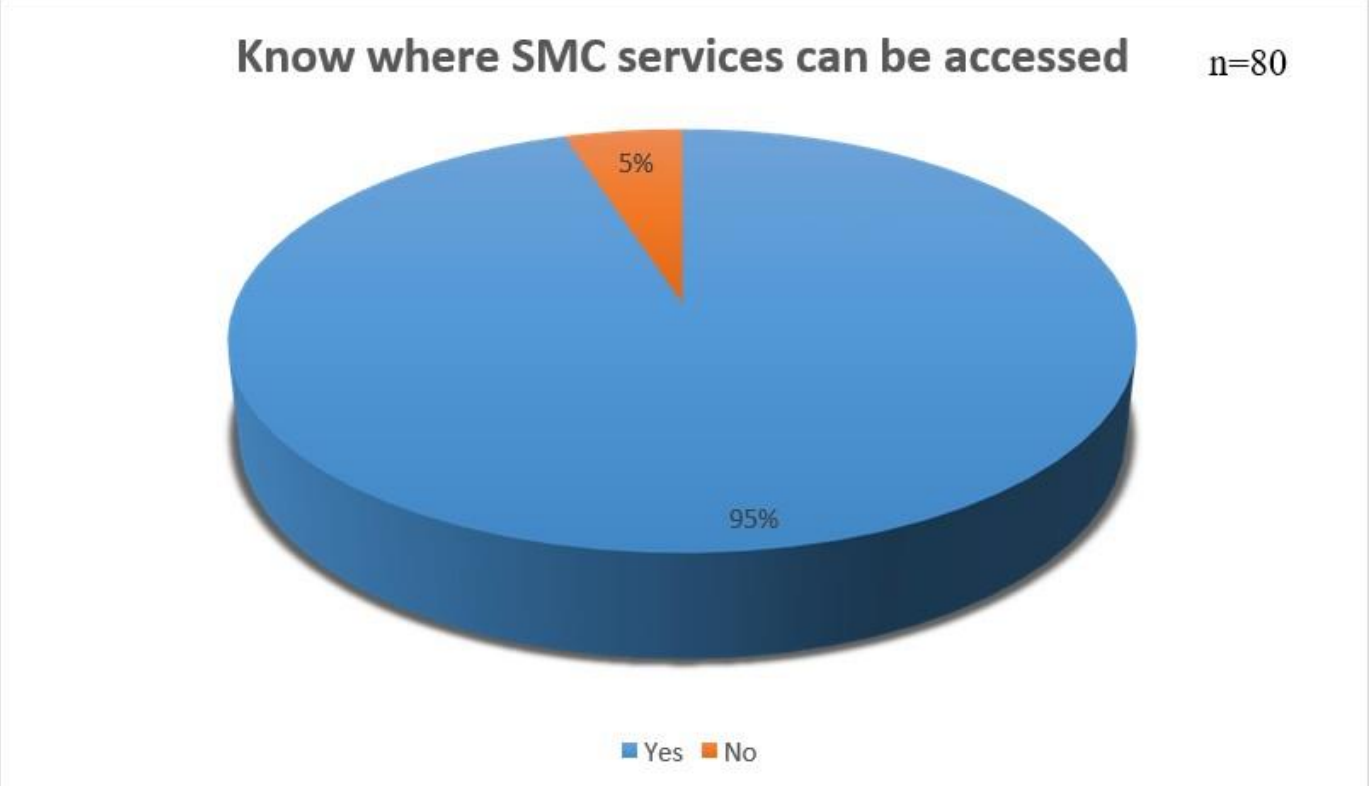

Figure 2: Shows knowledge of respondents on where SMC services can be accessed

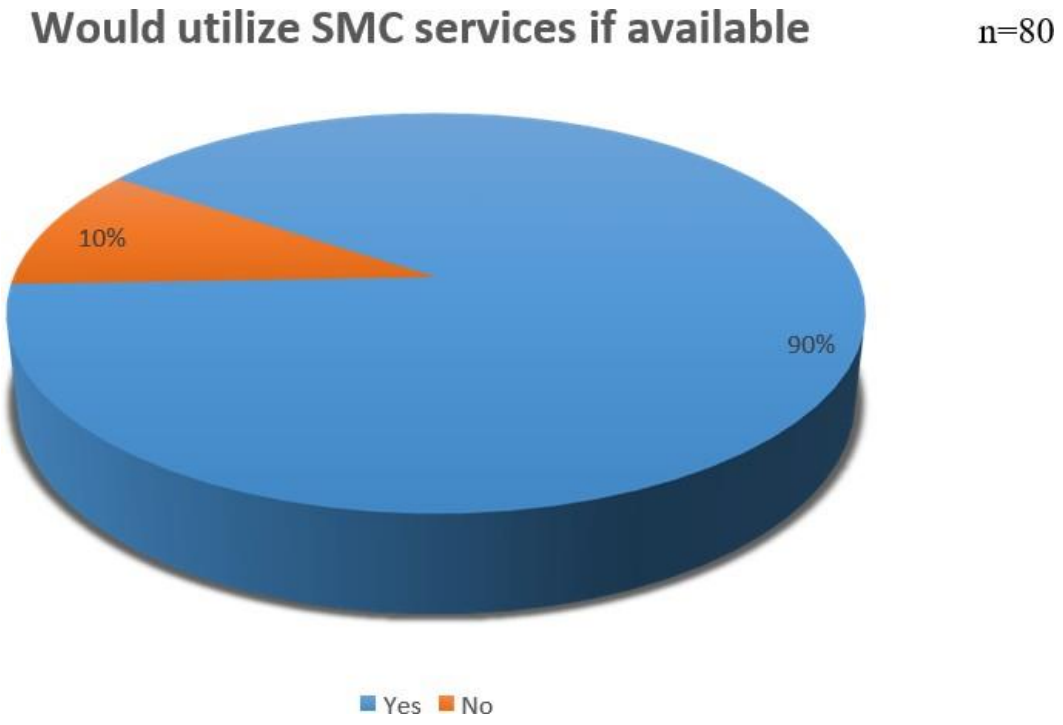

Figure 3: Shows youth that would access SMC services if the opportunity is available irrespective of their circumcision status.

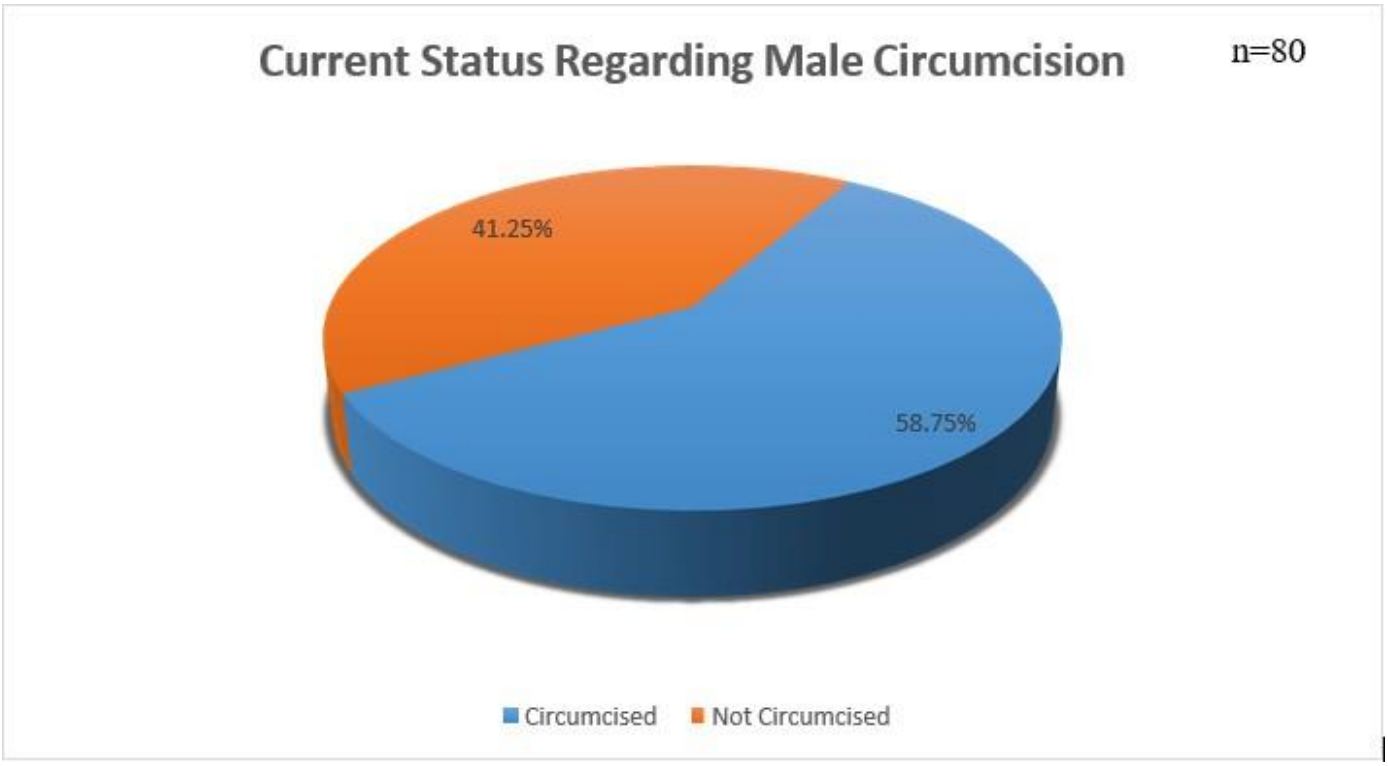

Figure 4: **Shows the prevalence of circumcision among the respondents**

Table 1: Shows demographic characteristics of the youth N=80

Variable	Category	Frequency	Percentage (%)
Age	15-20	26	32.50
	21-29	32	40.00
	30-34	6	7.50
	35-40	6	7.50
Level of Education	None	10	12.50
	Primary	33	41.25
	Secondary	28	35.00
	Tertiary	9	11.25
Marital Status	Single	46	57.50
	Married	23	28.75
	Co-habiting	9	11.25
	Divorced	2	2.50
Religion	Christian	61	76.25
	Muslim	18	22.50
	Traditional	1	1.25
	Other	0	0.00

Source: Primary Data (2023)

Table 2: Shows demographic characteristics of the youth N=80

Variable	**Category**	**Frequency**	**Percentage**
Ever heard about SMC	Yes	78	97.5
	No	2	2.5
From Whom did you did you hear about SMC	VHT	33	41.25
	Health Worker	26	32.5
	Local Leader	6	7.5
	Religious leader	3	3.75
	Radio	9	11.25
	Newspaper	1	1.25

(17.5%) counselled and tested for HIV. On the other hand, majority of the respondents 28 (35%) and 23 (28.75%) received paracetamol for pain management and health education on post SMC wound care respectively.

4. Discussion.

4.1. Knowledge of Safe Male Circumcision among Youth.

The study revealed that the majority of the respondents 78 (97.5%) had never heard about SMC with only 2 (2.5%) saying that they did not know. Most of the respondents 76 (95%) knew where SMC services can be accessed within the Kayonza sub-county. The study findings imply that SMC awareness was popular among the respondents, probably due to the continuous health education of the village health team members throughout their locality. The study findings are in line with another study that was carried out in Namibia which revealed that 96.5% of the respondents had ever heard about SMC (Nairenge, 2020).

Regarding the source of information, 33

Table 3: Shows attitude of youth towards SMC services n=80

PARAMETER	Do not agree		Agree		Strongly agree	
	f	%	f	%	f	%
SMC reduce risk of acquiring HIV by 60%	11	14	59	74	10	12
SMC improves penile hygiene	0	0	16	20	64	80
Circumcised men sexually perform better	8	10	24	30	48	60
SMC reduces transmission of cervical cancer	53	66	23	29	4	05
Circumcised males are liked by most women	5	06	16	20	59	74
	Do not agree		Agree		Strongly agree	
SMC reduces the length of the penis	61	76	16	20	3	04
Circumcision reduces penile sensitivity	66	82	12	15	2	3
SMC is very painful	14	17	51	64	15	19
SMC reduces fertility and sexual pleasure	73	90	6	08	1	02
post SMC wound take long to heal	37	46	35	44	8	10

Source: Primary Data (2023)

Table 4: Shows attitude of youth towards practices during SMC n=80

SMC PRACTICE	Not good		Good		Very good	
	f	%	f	%	f	%
Circumcision under local anesthesia	15	19	20	25	45	56
Stitching post SMC wound	12	15	53	66	15	19
Bandaging post SMC wound	07	09	56	70	17	21
Post SMC pain management using paracetamol	03	04	32	40	45	56
Post SMC wound by open dressing with saline water	13	16	56	70	10	14

Source: Primary Data (2023)

Table 5: Shows the age at which respondents were circumcised and person that carried out the **procedure** n=80

Variable	**Range**	**Frequency**	**Percentage**
Age of Circumcision	Below 10	11	13.75
	10-19	28	35.00
	20-29	8	10.00
	30-35	0	0.00
	Above 35	0	0.00
Who carried out the proctgyrfo-edure	Health worker	34	42.5
	Cultural leader	3	3.75
	Religious leader	5	6.25
	Parent/Relative	1	1.25
	Not in the know	4	5.00

Source: Primary Data (2023)

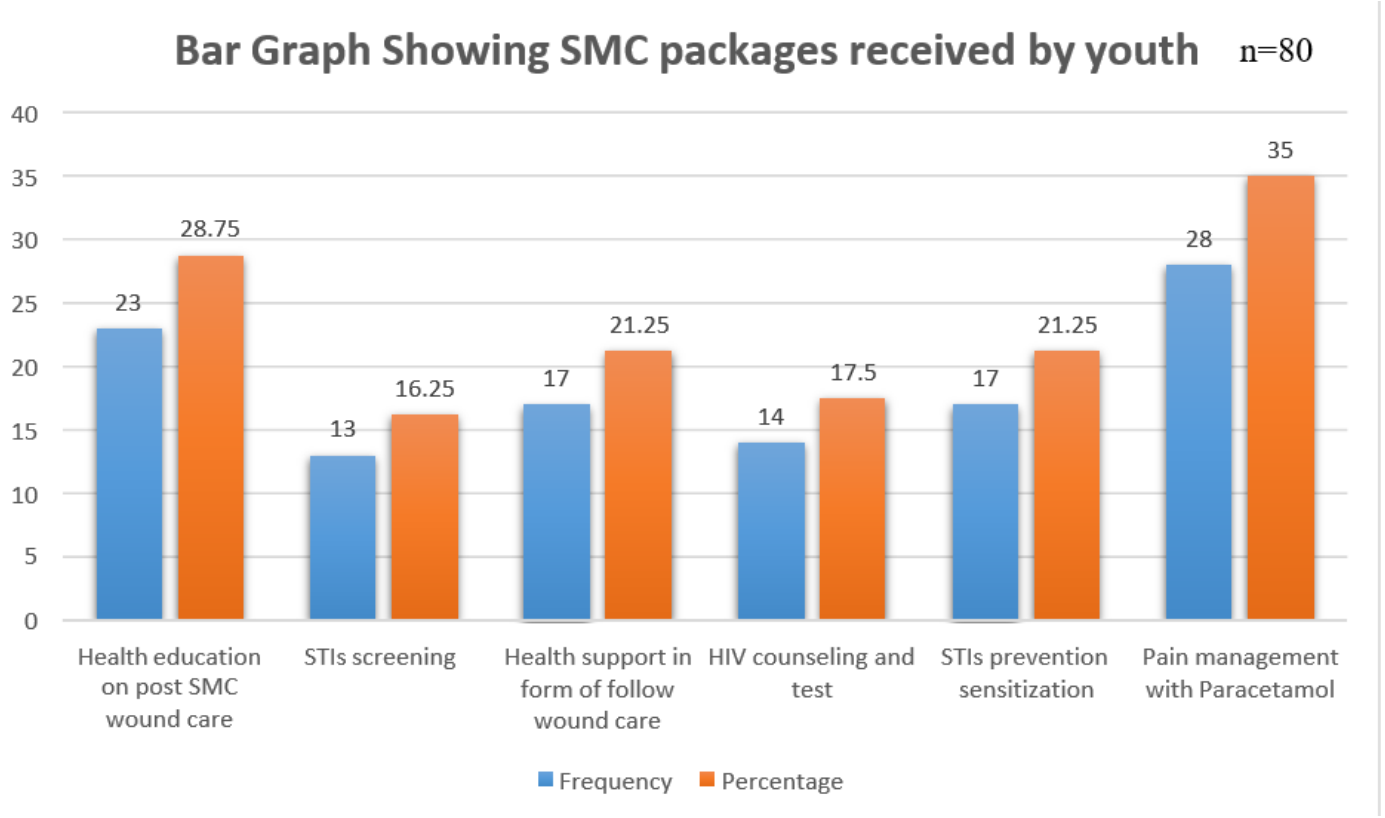

Figure 5: Shows circumcision service packages received by the respondents Source: Primary Data (2023)

(41.25%) of the respondents received information about SMC from VHTs. This could be attributed to the vigorous sensitization campaigns by the VHTs and community outreach programs by health workers' efforts in health education of the masses as they receive other health services. The study findings are contrary to a Botswanan study which identified the media (51.8%) which comprised of radio, television, and billboards as the main source of information (Tapera et al., 2017)

The study also revealed that slightly over half of the respondents 42 (52.5%) were given prevention of acquisition of HIV as a reason for SMC. This was probably because over a third of the respondents obtained SMC information from health workers who are up to date with facts from studies that show SMC in the reduction of the spread of HIV. The results fall in line with a report by WHO that indicated and stressed the uptake of SMC services to reduce the prevalence and spread of HIV in highly susceptible societies. (World Health Organization, 2021)

4.2. Attitudes towards Safe Male Circumcision among youth.

The study revealed that over 3 quarters of the respondents, 59 (74%) and 10 (12%) agreed and strongly agreed respectively that SMC reduces the risk of acquisition of HIV by 60%, none of the respondents 0% did not disagree with statement that SMC improves penile hygiene therefore showed a good attitude towards the outcomes of SMC. This could be attributed to information-proven literature on the importance of MC and peer influence from the community as most believe the majority of women like circumcised men. The findings correlate with a study among adolescent males almost all adolescents 97% reported high satisfaction with SMC (Lane et al., 2018). Similarly in a South African study, mothers also considered SMC as very good about hygiene for their sons which impacted as a good attitude towards SMC to their sons.(Rushwaya, 2017)

The majority of the respondents 72 (90%) said that they would utilize SMC services regardless of their circumcision status if the opportunity

was given to them. This was probably due to the popular social view that circumcised men are liked by women, in addition to the service that is availed free of charge. The findings fall in line with another Ugandan study where the majority 68% of the uncircumcised boys were willing to utilize SMC services as they stated planned to get circumcised even though their friends did not go along with them. (Miiro et al., 2017) A similar trend is also observed from a study conducted in the Soroti district where most men 65% would voluntarily undergo MC(Esther, 2018).

4.3. Practices towards Safe Male Circumcision among youth.

Data analysis from the study revealed that the greatest proportion 47 (58.75%) of the respondents were circumcised and 42.5% of respondents sought SMC service, whereas the minority 33 (41.25%) were not circumcised. The high prevalence could be because of numerous safe male circumcision outreach camps conducted in the area, and also due to pre and post-SMC services that are offered to clients at Lugasa HCIII especially the free transportation by a dedicated van. These findings are way higher than that of a South African study where MC prevalence was at 48.3% (Rushwaya, 2017).

The results also established that most of the respondents 28 (35%) were circumcised between 10- 19 years and of age. This was probably because at this age the males are influenced by their friends to get circumcised as they believe it is best to do so at a younger age compared to when one is grown with a lot more responsibilities. The results fall short of the findings of a report where 48% of VMMC clients were within the 15-29 years age range (Davis et al., 2018).

The study findings demonstrated that health workers were responsible for the majority 34 (42.5%) of the circumcisions. This represented 72.34% of the circumcised youth. This could be associated with the free and easily accessible medical male circumcision services offered in the region to all males that are willing to be circumcised. The study finding is contrary to the findings of a Ugandan study on the utilization of SMC where only 8.40% of men were circumcised by medical workers in a designated SMC health facility (Lubogo et al., 2019).

5. Conclusions.

The study specifically sought to assess knowledge, attitude, and practices towards safe male circumcision among youths receiving medical services at Lugasa Health Centre III, Kayunga district. About knowledge, the respondents had acquired reliable information about SMC from the VHT and health workers, therefore, have adequate knowledge when it comes to safe male circumcision most especially in terms of access and safety.

The study also found out that most youths had a positive attitude towards safe male circumcision because VHTs and health workers at Lugasa educated the community about the benefits of circumcision which enlightened them to change their attitude thus promoting a healthy life. This is shown by the great number of youths who stated that they would get circumcised if the SMC services are provided.

The practice of safe male circumcision was found to be good because most youths sought the services of SMC willingly this is evidenced by the large number of respondents who are circumcised by the health workers at Lugasa health centre IV.

6. Study limitations.

The researcher and research assistant put efforts to convince the respondents that the information exchange will remain confidential. Some respondents were slow to understand some questions due to their inadequate understanding of the English language, simple, clear, and precise items were set and a capable research assistant was used to help.

7. Recommendations.

Lugasa HCIII should include VHTs or a representative to participate in the continuous medical education programs that are held regularly at the

facility, this will impact the VHTs with updated information that is passed down to the community to include the latest proven importance of SMC in addition to the common known reasons.

The vigorous sensitization of the masses should be adopted at the health facility by taking advantage of waiting stations, especially at the pharmacy dispensary. This will provide contact time and an opportunity to pass educational content to the clients.

Local leaders and religious leaders who have a lot of trust within the community should be involved in the primary health care delivery system as they provide convergence avenues to the society to sensitize youth on the importance of male circumcision and its advantages for example HIV infection rate reduction.

Regarding the free trips to Kayunga Regional Referral Hospital, the facility leaders should strive to increase the number of trips for SMC to at least two every week from the usual one trip that is always every Monday of the week. This would cater to more of the youth who are left out as the maximum van capacity is reached.

8. Acknowledgement.

Great thanks to Mr. and Mrs. Obitre for the care and support they have shown me throughout my stay in Kitimbwa, may the almighty God continue to bless you. Special thanks to my supervisor Mr. Onyango Richard, the administration of Lugasa Health Centre III for their support and guidance most especially the facility in charge of Lugasa Health Centre III, Musawo Mukiibi for having allowed me to proceed with my study health Centre and staff for their wholesome support in the process of producing this work.

Above all, I thank the Almighty God for their protection throughout my study.

9. List of Abbreviations and Acronyms.

AIDS : Acquired Immune Deficiency Syndrome
FDGs : Focused Group Discussions
HIV : Human Immune DeficiencyVirus
MC : Male Circumcision
MOH : Ministry of Health
SMC : Safe Male Circumcision
STDs : Sexually Transmitted Diseases.
UDHS: Uganda Demographic Health Survey
UNICEF: United Nations Children Fund.
VMMC: Voluntary Medical Male Circumcision
WHO : World Health Organization

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