

Factors influencing the acceptability of male circumcision among mothers with male children in Kiryandongo District

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ABSTRACT

There is currently little information on the acceptability of male circumcision in Uganda. This study investigated the acceptability of male circumcision among mothers in the Kiryandongo district with male children. A cross-sectional survey was conducted among a convenience sample of 100 women attending a reproductive health clinic at the outpatient department (OPD) waiting area in Kiryandongo district hospital in Uganda between February and April 2018. Of the 100 invited eligible participants, the majority of women were Christians (78%), (18%) were Muslims, and (4%) were Pentecostal. About 60% of respondents had at least attained primary education (28%) had secondary education 9% had tertiary education and only 3% had no education at all. After women were informed about the risks and benefits of male circumcision, the majority of women with uncircumcised children 81% said they would definitely circumcise their children if the procedure were offered in a safe hospital setting, free of charge and a smaller number (7%) said they would probably consider the procedure. Only (1%) said that they would definitely probably not consider male circumcision, and (9%) were unsure. Since male circumcision has been found to decrease the risk of HIV infection. Among men, it is important to determine its acceptability as a potential HIV prevention strategy at even an early stage in Uganda. This study found male circumcision to be highly acceptable among a broad range of mothers with male children in Kiryandongo district Uganda. Further studies of acceptability among fathers and other populations are warranted.

Keywords: Male circumcision, Kiryandongo district, mothers, HIV infection.

INTRODUCTION

Male circumcision is the removal of the foreskin of the penis. Safe male circumcision (SMC) also known as voluntary medical male circumcision (VMMC) is a scientifically proven biomedical intervention that substantially reduces the risk of female-to-male transmission of HIV. Worldwide male circumcision is undertaken for religious, cultural, social, and medical reasons [1, 2]. The WHO and the UNAIDS [3] issued 2007 a recommendation that male circumcision should be included in the HIV prevention package. Several studies have shown a significant association between safe male circumcision (SMC) and HIV prevention [4]. A number of observational studies by Siegfried et al. [5] and several large randomized, controlled trials by Auvert et al. [6] have shown a protective effect of male circumcision against HIV and other sexually transmitted infections (STI) in men [7]. Most notably, the South African Orange Farm Intervention Trial sponsored by the French National Agency for Research on AIDS, demonstrated a 60% reduction in HIV infection among men who were circumcised, and trials in Kenya and Uganda Gray, et al. [8] showed a 53 and 51% reduction respectively, in risk of acquiring HIV infection. According to the Uganda Demographic and Health Survey (UDHS) conducted in 2006, only 25% of adults were circumcised and HIV prevalence among uncircumcised males was higher (6.7%) than in circumcised males (4.5%). By 2014, the 2014 Uganda HIV and AIDS Country progress report showed that 35% of adult men had undergone safe medical circumcision. In many parts of the world, the effectiveness of future male circumcision interventions will depend in large part on the acceptance and uptake of the procedure among men and parents of male children in traditionally

non-circumcising communities [9, 10]. A review of the 13 studies of the acceptability of male circumcision in nine sub-Saharan countries showed that median acceptability was 65% among men nearly 69% of women favored circumcision for their male partners and 81% of both men and women found circumcision acceptable for their male children [11]. Studies found that the most common barriers to the acceptability of male circumcision were fear of pain [12] cost, and concerns about complications and side effects especially if male circumcision was performed in traditional, nonmedical settings [13]. The major facilitators of male circumcision acceptability included better penile hygiene [14-16] protection from STI and HIV infection [17-19], and the belief that male circumcision improved sexual pleasure [12, 20, 21]. In African studies, the preferred age for male circumcision varied by country. In Botswana, the majority of respondents favored male circumcision in infancy and early childhood [22] while in most other countries, participants expressed the belief that male circumcision should be carried out between ages 8 and 16 years [11, 23]. In Uganda, according to the SMC policy, male circumcision was developed through participatory and consultative processes and informed by the draft national health policy ii (DNHP) and the 2008/2012 national HIV/AIDS strategic plan.

Problem statement

According to the SMC campaign by the Ministry of Health (MOH), to ensure male circumcision as part of the comprehensive strategy, SMC was targeted for all males including neonates whose parents and guardians voluntarily requested it. However, when the policy only targeted those who voluntarily accepted SMC for their children. Questions about why some mothers would accept and others do not accept SMC for their children had to be answered. Therefore, this research explored these factors that the mothers base on to accept safe male circumcision (SMC) for their children. For this reason, policymakers within the MOH would modify and make it a mandate to practice SMC for all male children born irrespective of their cultural or religious background. There was therefore a need for more research on the acceptability of Male circumcision in Kiryandongo district Uganda.

Aim

The study will determine the factors that influence the acceptability of male circumcision amongst mothers with male children in the Kiryandongo district.

Specific objectives

To determine the benefits that would come along with SMC at an early stage of development.

To establish the relevance of SMC in the prevention of HIV and other sexually transmitted infections in males.

To determine the effectiveness of voluntary response towards the SMC campaign among infants in the Kiryandongo district.

Research questions

What are the factors that influence the acceptability of male circumcision?

What are the benefits that would come along with awareness of EIMC?

What is the relevance of SMC in the prevention of HIV and other sexually transmitted infections?

What is the effectiveness of voluntary response towards the SMC campaign among infants in the Kiryandongo district?

METHODOLOGY

Research design

The study was a descriptive small-scale cross-sectional study aimed at describing the in-depth factors that influence the acceptability of male circumcision among mothers with male children in the Kiryandongo district. Male children from neonates to young adults are still under their parents' custody. As per the statement of the problem noted above. Why some mothers will voluntarily accept SMC for their male children and others do not and to find out the avoidable reasons that others who fail to accept since it was less costly. Data collection from the respondents was easy and not so much time-consuming.

Study area and location

Kiryandongo district is located in the western region of Uganda's bunyoro sub-region, its 3,624.1 km². Elevation is 3810 ft Total population of 317500 density 87.6/km, website Kiryandongo go.gu. Kiryandongo is bordered by the Nwoya district to The north Oyam district to the northeast Apac district to the east and the Masindi district to the south and west. The location of the district headquarters lies approximately 22.5 kilometers by the road northwest of Kampala Uganda capital and largest city the coordinates of the district are 02 00 N 32 E (latitude 1000: longitude: 32.3000}

Study population

The study population involved mothers that visited the Kiryandongo district hospital and those that stay with their children in the Kiryandongo district. A total number of 100 participants was invited. The study population consisted of a non-random sample of women who agreed to be interviewed when they came in for an examination for

reproductive health problems. Women were eligible if they were above 18 years of age with one or more male children. Informed consent was obtained from all participants and interviews were conducted by trained interviewers in the local languages of Luganda, Kiswahili, Runyoro, Alur and English in a private room at the hospital OPD waiting area. The study was approved by the Independent Ethics Committee of Kiryandongo district hospital and by the Medical Superintendent of Kiryandongo district hospital.

Sample size determination

Fishers et al 1990 was used to determine my sample size.

$$n = \frac{Z^2 pq}{d^2}$$

d²

Where:

n=sample size

Z=standard deviation at the required degree of accuracy which at 95% is 1.96

P=proportion of the population with the desired characteristics =0.5

Q=0.5

Q=1-p (proportion of the population without desired characteristics)

Q=1-0.5

Q=0.5

R=degree of error I am to expect=0.05

$$n = \frac{(1.96)^2 \times (0.5 \times 0.5)}{(0.05)^2}$$

Sample size=384.

The study was supposed to be involving 384 participants but due to the limited time and resources I only used 100 participants.

Sampling method

Non probability sampling in particular was used in this study.

Inclusion criteria

A total of 100 respondents was involved in this study. These included mothers that have male children a bigger proportion of the respondents included mothers with infants and a lesser proportion included mothers with school going children. All tribes from the different traditional backgrounds were considered in this study all religions known in Kiryandongo district were included some of the study population was chosen from mothers who brought their children for SMC and also those that had infants admitted at the pediatric ward in Kiryandongo district hospital.

Exclusion criteria

Fathers of the male children were excluded in the study. This is because this study was only targeting mother's decision on the acceptability of SMC for their infants voluntarily.

Data collection techniques

The data collection instrument utilized both closed and open-ended questions about demographic information and participants' views and attitudes concerning male circumcision. Prior to the start of the interview, all women were shown illustrations of male circumcision and the interviewer verbally described the procedure. Both the risks and the benefits of male circumcision were carefully explained. Each participant was told that the potential risks of male circumcision included bleeding or injury during the time of surgery, infection and pain after surgery. The benefits included protection against penile cancer and infections such as HIV urinary tract infections and sexually transmitted infections. For Gishu speaking women the term imbalu was used to describe male circumcision. The interview proceeded only after the participants indicated that they understood and were willing to answer questions concerning the topic. Skip patterns were used in the questionnaire in order to save time and allow women to not answer questions that were not applicable. Data were analyzed and Conventional descriptive statistics were used to assess the characteristics of the study participants.

Analysis of data

All data collected was reviewed and documented using Microsoft Excel and Word version 2010 then be statistically analyzed using SPSS v.20. The analyzed data was then presented in form of tables and graphs which became a basis for discussion and conclusion among others.

Ethical considerations

Introductory letter from the administration of Kampala international university [attached] requesting for hospital administration to grant me permission to collect data from their medical departments listed was got before data

collection could commence. Permission from departments concerned and Informed consent from patients from whom data was to be collected were also sought prior the data collection exercise.

Data processing

1. **Editing:** This process involved scrutinizing and examining the already administered questionnaires for completeness, accuracy, and internal consistency by the researcher. It also included standardizing certain aspects of the questionnaire to facilitate analysis.

Data entry: was first done using Microsoft word and Expel 2013 and after completing the above exercise, suitable questionnaire records will be imported into SPSS for analysis.

RESULTS

Background Characteristics of Respondents

Background characteristics serve to paint a picture of the area of study and the nature of respondents in a socio-economic sense. The background characteristics enlisted were; Age of the mother marital status occupation, sex, religion, level of education, tribe, and place of residence. It was these characteristics that were regressed subsequently to distill out plausible factors if any that could dictate decision-making in the acceptability of male circumcision. The same characteristics were enlisted with their results.

Demographic data

Table: 1 Age of respondent of mothers which is presented in age groups.

Age group	Frequency (No)	Percent	Valid Percent
15-20	14	14.0	14.0
21-30	76	76.0	76.0
31-40	10	10.0	10.0
Total	100	100.0	100.0

Source: primary data:

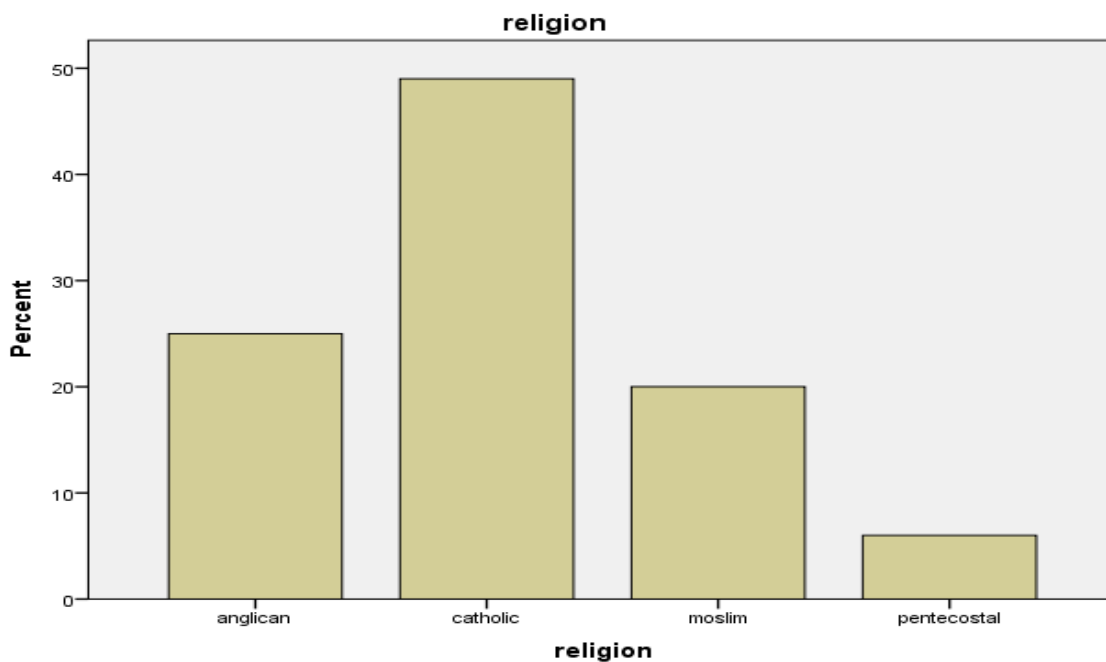
From table one above it shows that there was a huge turn up for mothers with in the age group of (21 – 30) n=76 76% of all the respondents and the least turn up was by mothers in the (31 - 40) age group n=10 at 10%. Implication from this is that there were more young mothers compared to the extremity age groups.

Table: 2 Religious affiliation of the respondents

On analysis of the results, respondents were asked to state their religious affiliation. From the results Catholics were n=49 49%, Protestants n=25, 25%, followed by Muslims n=20, 20%, n=6 Pentecostals 6%. The implication from this distribution, therefore, is that they were more Catholic mothers than any other religion.

Religion	Frequency	Percent	Valid Percent
Anglican	25	25.0	25.0
Catholic	49	49.0	49.0
Muslims	20	20.0	20.0
Pentecostal	6	6.0	6.0
Total	100	100.0	100.0

Figure: 1 Graphical representation of respondents according to religion



Source: primary data

Table 3: Place of resident

Resident	Frequency	Percent	Valid Percent
Town	41	41.0	41.0
Village	59	59.0	59.0
Total	100	100.0	100.0

Source: primary data

Respondents were asked their place of residence and this was categorized as town and village. Town and trading center were assumed to be urban while village was rural. Most of the respondents live in rural areas (59%) and of the urban respondents, 41% live in urban areas while 34% lived with their parents and 66% alone or with their husbands.

Figure 2 education level distribution of the respondents

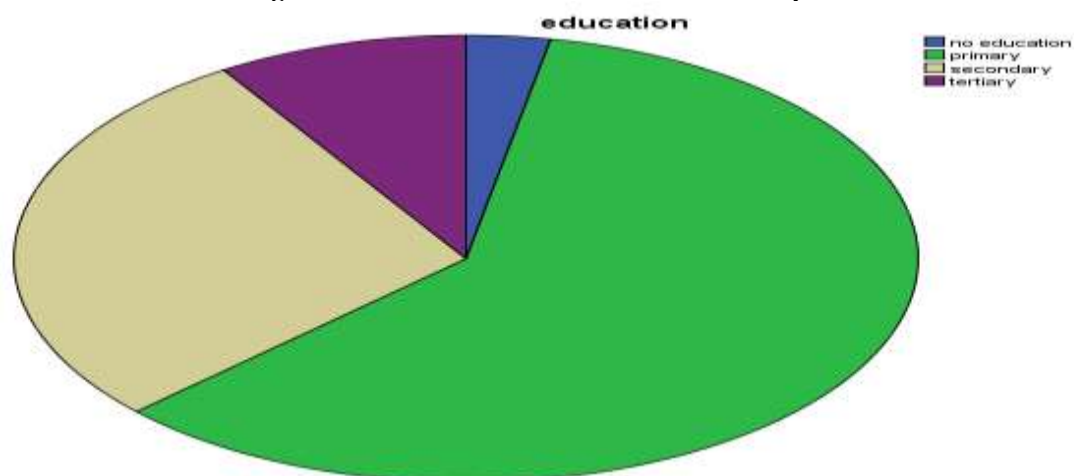


Table 4: Education level of respondents.

Of the 100 people under the study, the majority had primary education (60%), followed Secondary education (28%), then tertiary education with 9%, and no education (3%).

	Frequency	Percent	Valid Percent
no education	3	3.0	3.0
Primary	60	60.0	60.0
Secondary	28	28.0	28.0
Tertiary	9	9.0	9.0
Total	100	100.0	100.0

Source : primary data

Table 5 occupation of the respondents

	Frequency	Percent	Valid Percent
peasant farmer	64	64.0	64.0
civil servant	8	8.0	8.0
casual laborer	6	6.0	6.0
business person	17	17.0	17.0
Driver	5	5.0	5.0
Total	100	100.0	100.0

Source: primary data

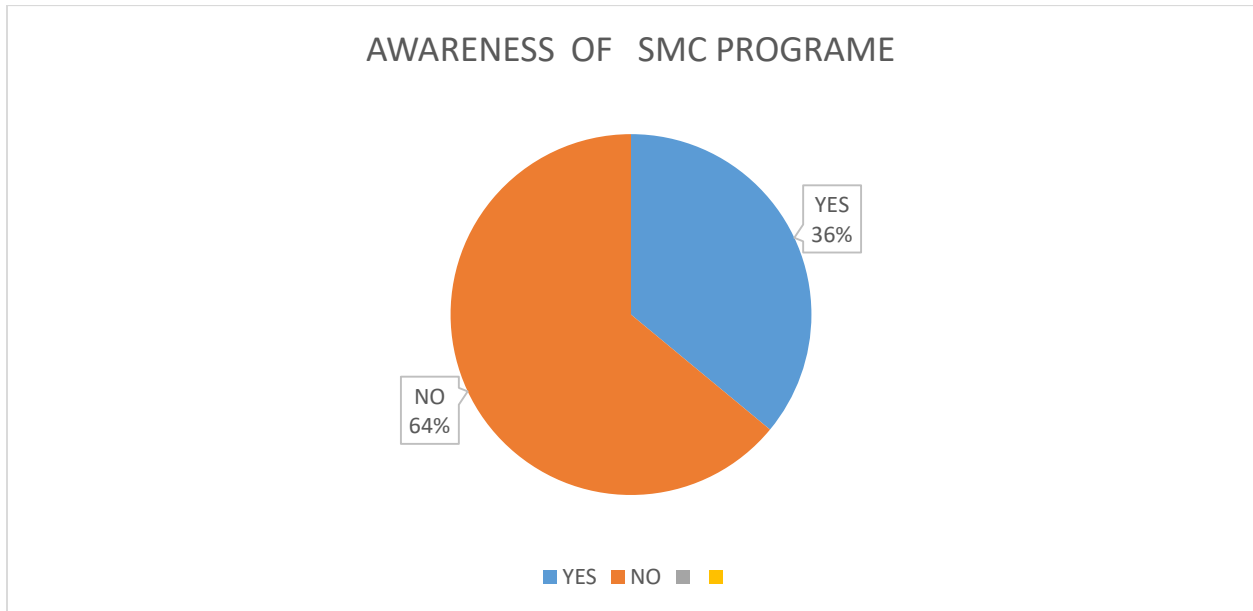
The biggest percentage (64%) of the mothers indicated that they are peasant farmers by occupation. A few of the mothers were engaged in business (17%), Civil servants (8%), Casual laborer (6%), and drivers (5%).

Assessment of the factors that contribute to the acceptability of male circumcision

Awareness of the SMC Program

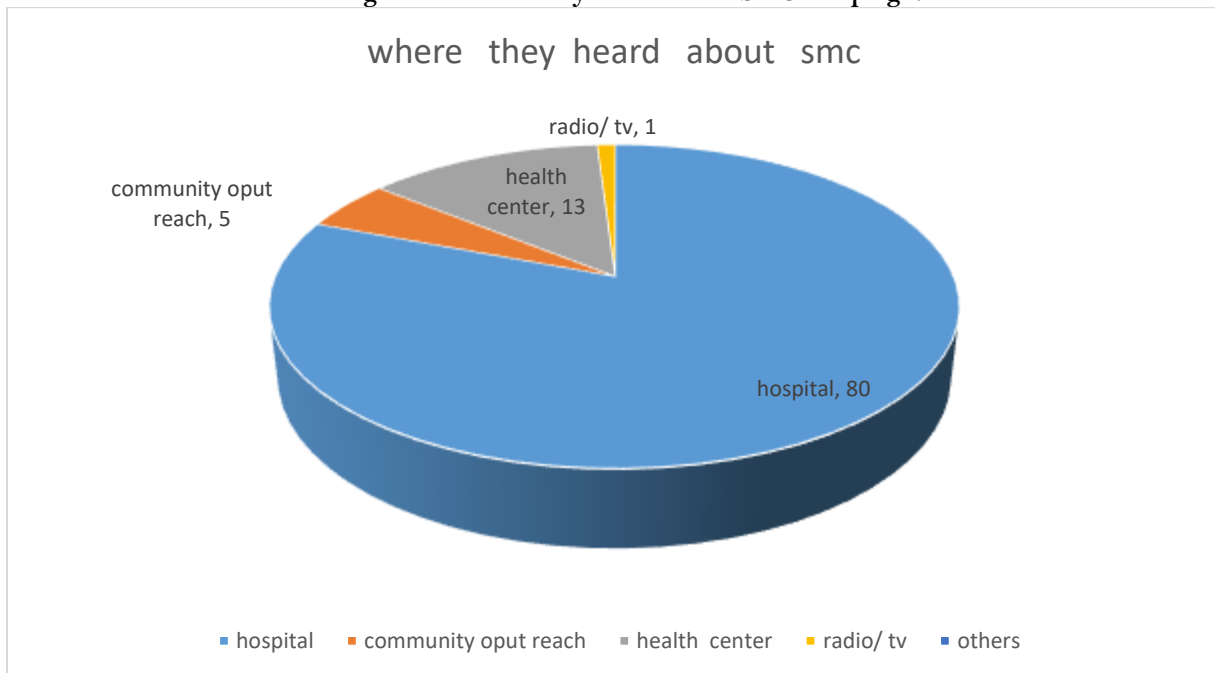
Most of the respondents that turned up didn't know about the SMC campaign program by the MOH. 64 % of the respondents dint know about the male circumcision campaign by the MOH only 36 % of the respondents knew about the SMC campaign by the MOH. This implies that the means of communication and the education program used by the ministry is not effective enough more so more efforts have to be added in in the awareness about the SMC campaign.

Figure 3: awareness of SMC program



Where they heard about

Figure : 4 where they heard about SMC campaign.



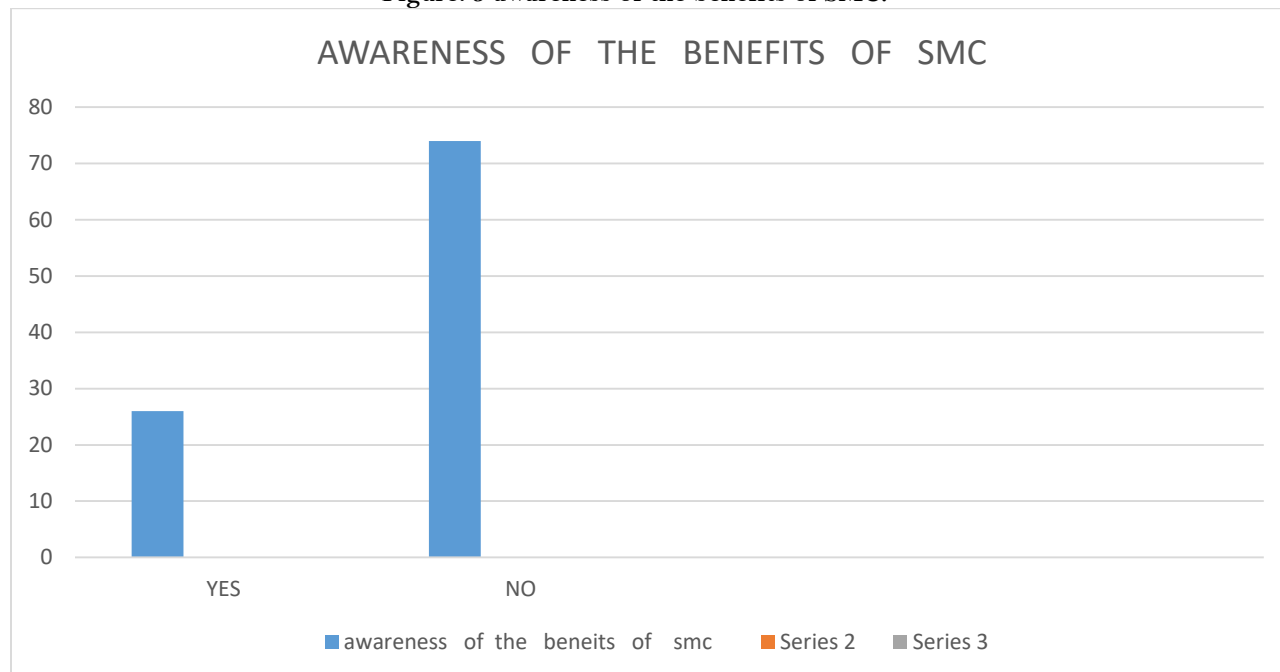
Source: primary data

When mothers who knew about the SMC campaign by the MOH were asked about where they heard it. Majority of them 80% reported that they heard about the program from the hospital when they had come for health visits. 5% through Community out-reaches, 13% through health center visits only 1% heard through radio / tv communications. This would mean that there is a need for the ministry to improve awareness through the radio and tv programs this is because they cover a wide target coverage.

Awareness of the benefits of infant SMC.

Only 6 % of the respondents knew about the benefits of SMC and the majority 74 % dint know about the benefits EIMC. These mothers were assessed on whether minus the social or cultural backgrounds they knew of any benefits of SMC for their infants in terms of health.

Figure: 5 awareness of the benefits of SMC.

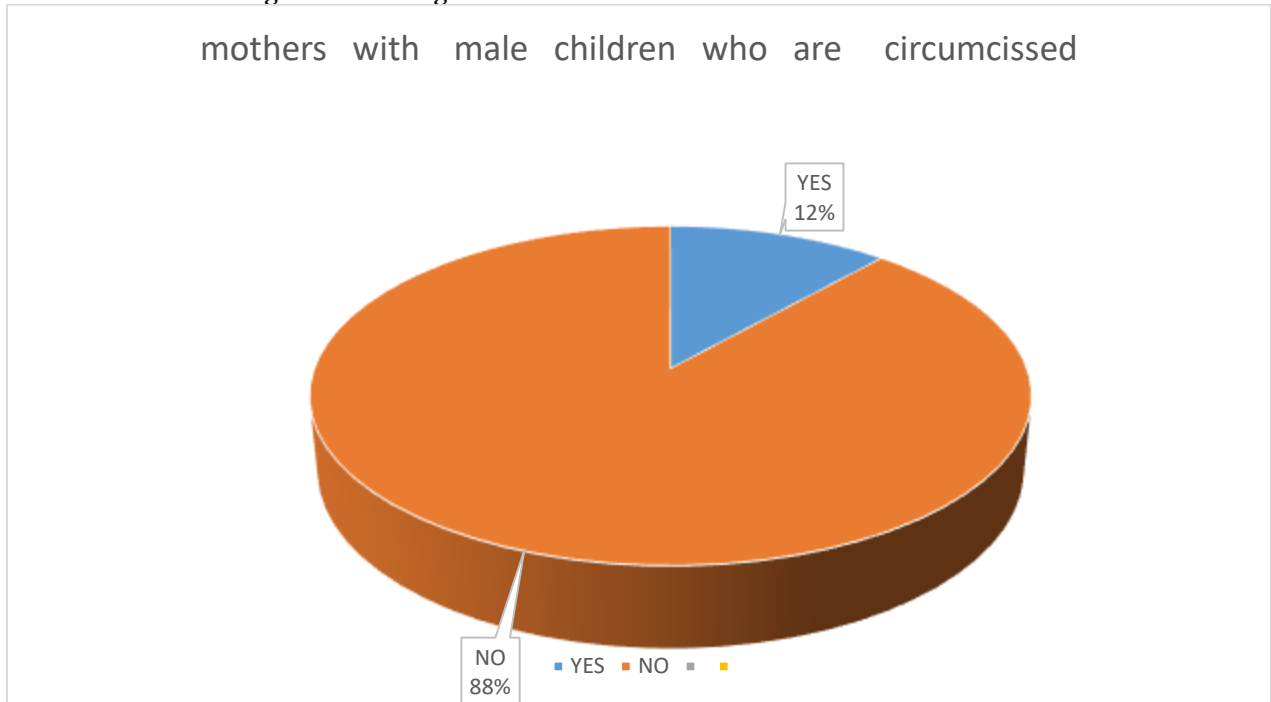


Source: primary data

Mothers with male children

Out of the 100 respondents that were involved in the study only 12 had male children that were circumcised the majority of the Mothers 88% had male children that were not circumcised, this more explained the ineffectiveness of the SMC campaign. Either the awareness programs are not accurate or little is done on explaining about the benefits of SMC.

Figure: 6 showing mothers with male children that are circumcised



Source: primary data

Age at which male children can be circumcised

53 % of the mothers chose that they would accept SMC for their children if at all it was done after 1 year 30 % did not know at what age circumcision would be done only 11 % chose SMC to be done at less than 1 year of age whereas 6 % had no response.

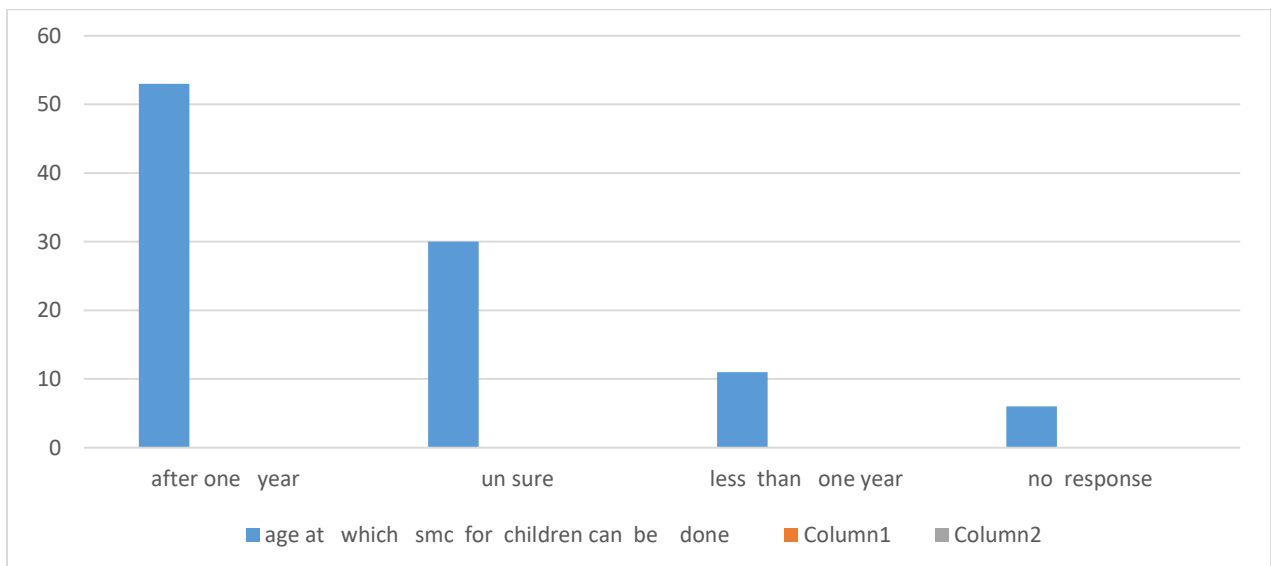
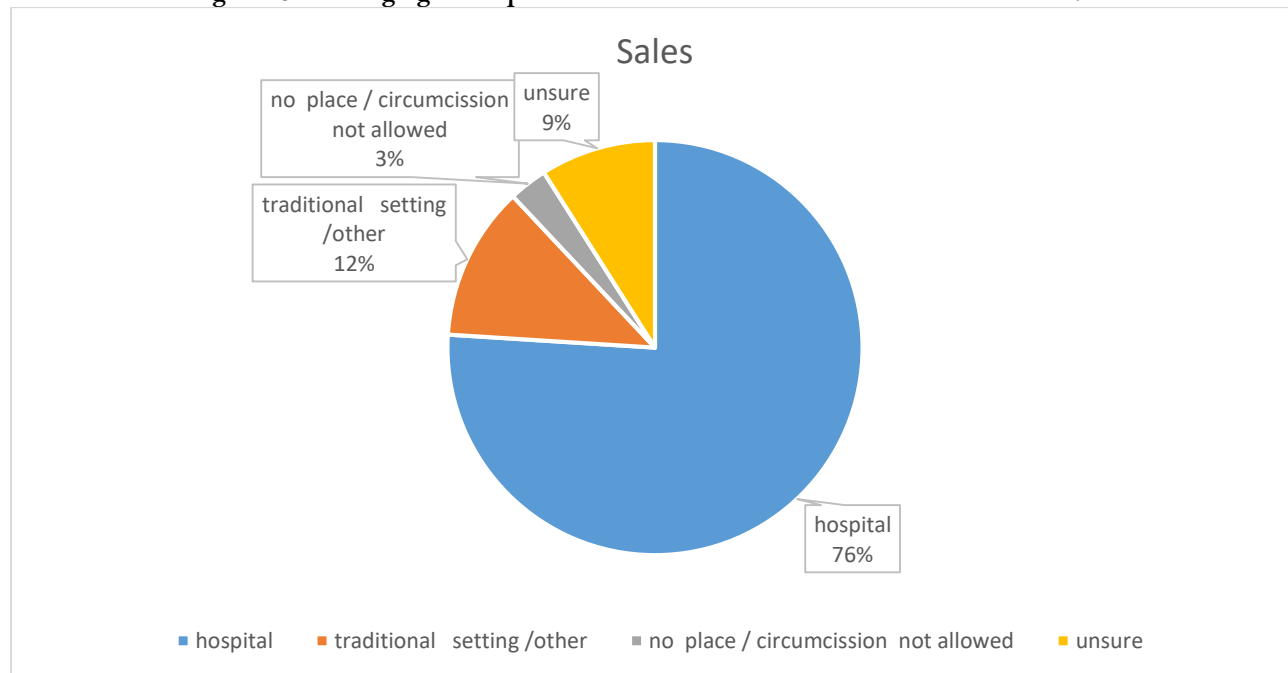


Figure: 7 showing age at which male circumcision can be done.

Source: primary data.

Best place for conducting male circumcision.
Figure: 8 showing age best place at which male circumcision should be done.



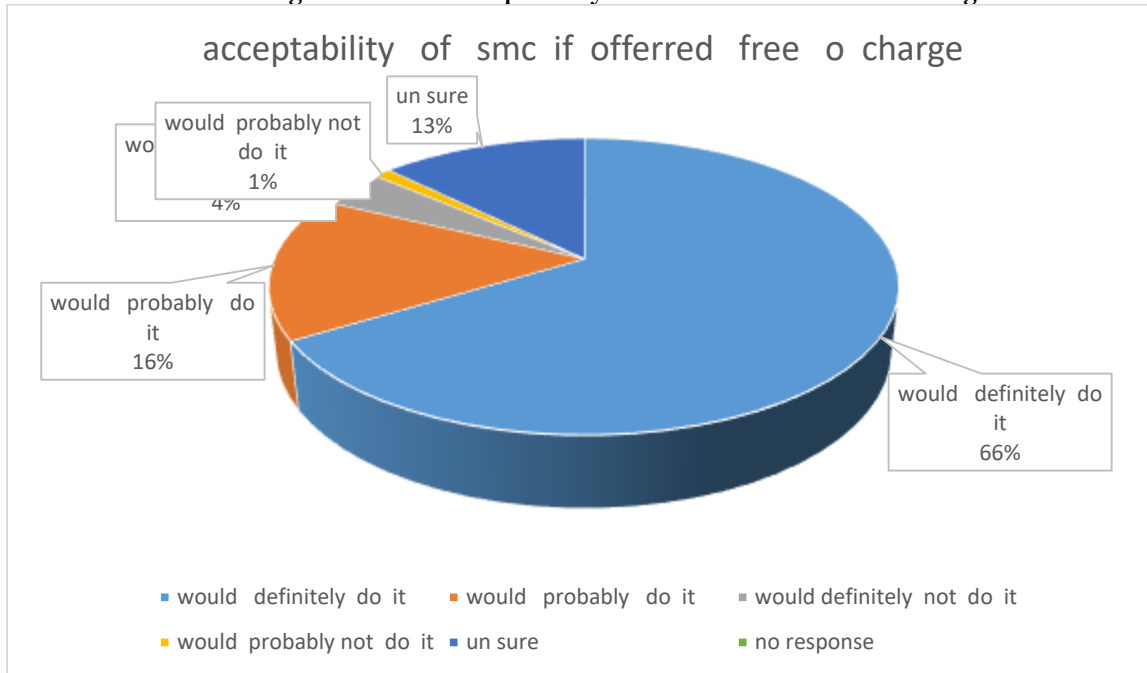
Source: primary data.

Majority of the mothers 76% were comfortable with male circumcision of their infants if at all it was done in a hospital setting 12 % preferred traditional setting 9 % were unsure about were to have male circumcision for their children where as 3% dint choose any place ie, male circumcision was not allowed

Male circumcision is offered free of charge in a safe hospital setting.

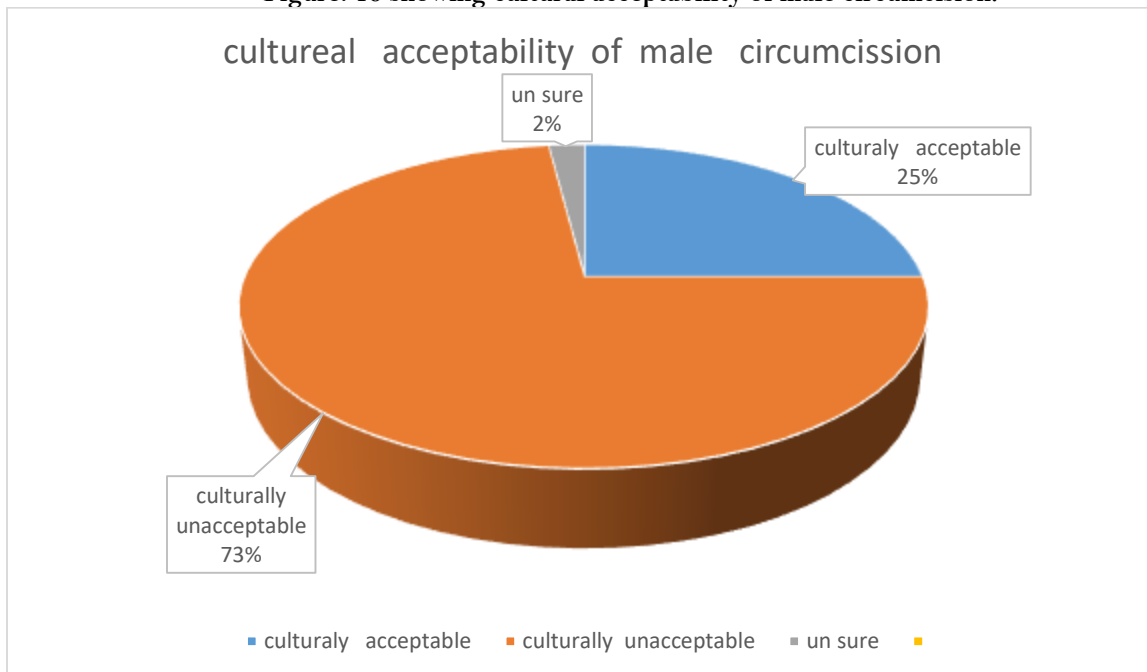
When asked if male circumcision is offered free of charge from the hospital a big percentage of the mothers 66% would definitely accept it for their children, 4% would probably accept it 13 % were unsure if they would do it and only 1 would not accept it.

Figure: 9 shows acceptability if EIMC is offered free of charge.



Source: primary data

Cultural acceptability of male circumcission.
Figure: 10 showing cultural acceptability of male circumcission.



Source: primary data

On cultural acceptability of male circumcision, a big percentage of the mother's don't have a cultural background of male circumcision 73%. Only 5% of the mothers had male circumcision fully acceptable to their cultural background and only % were not sure whether their cultural background accepted male circumcision for their children.

DISCUSSION

Significant demographic data

Of the 100 invited eligible participants all the women agreed to participate (response rate: 100%). The median age of participants was 6 years (range 21 -30 years). The majority of women were Catholics (49%), 20% were Muslims, 5% were Protestants and 6% were Pentecostals. The implication from this was that the majority of the mothers were from non-circumcising religious backgrounds i.e. the catholic religion. More than half (60%) of respondents had achieved primary education, 28% had secondary education, only 9% had achieved tertiary education, and 3% of the respondents had no education at all. A majority (65%) of women interviewed were peasant farmers by occupation, 25% were unskilled laborers, and 10% were skilled workers. Women attending the reproductive health clinic came mainly from Kiryandongo town which is predominantly a Christian region but also has a large enclave of Muslims living in close proximity to the hospital.

Reasons for accepting or not accepting male circumcision

Participants provided information about 15 male children (median age: 8 years, range: 1 month to 17 years). Of those, only (12%) were circumcised. Among these women who reported that they had at least one male child who was circumcised, 84% were Muslims (15%) were Catholics and one (1%) was Pentecostal. When asked for the important reasons why they circumcised their sons, participants gave the following responses: (82%) specified religion, (9.2%) reported advice from a doctor (7%) reported health reasons (1%) said she wanted her child to look like his father and one declined to respond. Among women who reported not circumcising any of their male children 88% (56%) gave religion as the most important reason. Other responses included: (46%) reported that they had no knowledge about safe male circumcision, (10%) stated that they intended to circumcise their children when they were older (5%) said they felt the procedure was unnecessary (1%) said they had not circumcised their children for health reasons (1%) reported that they felt it was a dangerous procedure, (1%) had not circumcised her child for financial reasons and (1%) gave no response. Participants who had not circumcised their children were then asked to state the various reasons that might change their minds about having their children circumcised. Because women could give multiple reasons there were 342 responses from 100 respondents. Reasons given included: learning that male circumcision might prevent serious health problems in their children including HIV (87%) learning how long it takes for male circumcision to heal completely (4.9%), understanding how a doctor would circumcise a child (3%), understanding that male circumcision would be done with minimal pain (9%) and 'nothing would change my mind about having my child circumcised [20-27]'.

Awareness about the benefits of SMC

Mothers were interviewed and asked to respond if they knew about any benefits of SMC. This was before the interviewer had explained to the different mothers the benefits of SMC. It was found that 67% of the mothers knew of at least one correct benefit of SMC. The majority of these pointed out penile hygiene for their children as the most known benefit of EIMC or their children. The remaining percentage of the mothers gave different reasons for benefits for SMC for their children and the following points were noted out as explained in the discussion below. After the mothers had been taught and explained too about the benefits of SMC by the research interviewers there was quite a big change in the factors they would consider in order to accept male circumcision or their children

Decision-making on male circumcision acceptability

When mothers who had not circumcised their sons were asked who would make the final decision about whether to circumcise, they gave the following responses: the child's father alone (68%), the mother alone (13%), jointly by parents (13%), other family members (1%), a husband with other family members (4.5%) and both parents jointly with other family members (1.2%). Two mothers did not offer a response to this question. None of the women felt a doctor or care provider would be involved in the final decision. Overall, fathers were considered important decision-makers, 70% of the time as compared with only 25% time when mothers were involved in these decisions

The typical age for male circumcision

Among mothers who had reported that they had their male children circumcised. Most of them reported that their children had been circumcised at less than 3 years of age (38%) between 4 and 6 years of age, (40%) between 7 and 9 years of age, and 8%) at more than 9 years of age. Five mothers did not give the age at which their children can circumcised. Among participants who had not circumcised their sons, the majority (81%) did not know the age when they would circumcise their children.

Setting for male circumcision

When participants were asked 'Where is the best setting to have a male circumcision performed?', a majority specified hospital (77%), (3%) felt a non-hospital setting such as a mosque or home was appropriate, 15% were unsure about what an appropriate setting would be and 5% of respondents felt that no setting was appropriate for male circumcision.

Acceptability of male circumcision

When women with uncircumcised children were asked whether they would circumcise their children if the charge was free most 81% said that they would definitely consider circumcising their children, and a smaller number (7%) said they would probably consider the procedure. Only (1%) said that they would definitely/probably not consider male circumcision and (9%) were unsure. When asked whether male circumcision was culturally acceptable, (43%) stated that they thought it was, (15%) believed that it was not and (43%) of women were unsure (responses have been presented stratified by religion and male circumcision Religion was considered an important factor in the acceptance of male circumcision. From the results of this study, male circumcision appears to be highly acceptable among mothers with male children in the Kiryandongo district. Although the majority of children in this population are currently uncircumcised, 88% of participants with uncircumcised children stated after being informed of the risks and benefits of male circumcision that they would 'definitely' or 'probably' circumcise a male child if the procedure was offered free of charge in a hospital setting. Religion was the strongest correlate for decisions concerning male circumcision. It was mentioned as a deciding factor both among mothers who had circumcised their children and those who had not. Nevertheless, a majority of mothers with uncircumcised children indicated that they would consider male circumcision if they learned that the procedure would prevent serious health problems for their children. This finding suggests that educational programs explaining the health benefits and risks of male circumcision might facilitate more informed decision-making about the procedure. As expected attitudes and beliefs about male circumcision varied widely between Muslim and non-Muslim mothers. It is interesting to note that although all religious groups agreed that a hospital was the best setting for male circumcision, Muslim mothers were less likely than their Christian counterparts to definitely or probably circumcise their children if the procedure was offered free of cost. Anecdotal information provided by several Muslim mothers suggested that some participants believed that religious custom would not be satisfied unless they provided remuneration for the procedure. In addition, although Muslim women reported that the ideal time for circumcising a child was between 5 and 7 years of age their non-Muslim counterparts were almost universally unsure about when to circumcise a child. More research is needed to better understand the cultural milieu surrounding male circumcision attitudes in Uganda at large. The strengths of my study included a relatively large sample size and a diverse population of participants. There were several limitations however, because participants were recruited from a reproductive health clinic, findings from the study may not be generalizable to other populations. It is likely that some participants may have misreported their attitudes due to social desirability bias. There is also limited predictive value for responses about future events, so it is impossible to assess the reliability of participants' intent to circumcise their children. In addition, only mothers of male children were extensively surveyed so the results reflect only the attitudes of women who already have male children. This study also did not assess acceptability among fathers who appear to have the primary decision-making power on whether male circumcision will be performed. Further research is needed to understand men's attitudes about male circumcision before male circumcision is considered an HIV prevention strategy.

CONCLUSION AND RECOMMENDATIONS

The results of this study indicate that in a traditionally non-circumcising society like Kiryandongo, a high proportion of mothers with male children were interested in having their children circumcised. Although my study reflects the attitudes of women, previous studies have shown that men and women have similar opinions regarding the acceptability of male circumcision for their children. Furthermore, mothers appear to be highly motivated to learn

more about male circumcision for their children and express willingness to consider the procedure if it is offered in a hospital-based setting. Additional studies are needed to investigate the actual uptake of the procedure and the relationship between stated intentions and actual behavior. It is also important to understand the cultural context of decision-making about male circumcision in a variety of settings with different study populations including fathers of male children in Kiryandongo district.

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