

PREVALENCE AND ACCEPTANCE OF MALE CIRCUMCISION AS HIV
PREVENTION AMONG MALE COLLEGE STUDENTS
GAMBELLA TOWN, SOUTH WESTERN ETHIOPIA 2014

By

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Abstract

Background: Male circumcision is the surgical removal of some or all of the foreskin (or prepuce) from the penis. Male circumcision is effective in reducing HIV acquisition by approximately 60% among males during heterosexual sex. Based on this in 2007, the World Health Organization and the United Nations Program on HIV/AIDS recommended the inclusion of male circumcision in HIV prevention programs, especially in countries with generalized heterosexual HIV epidemics, high HIV prevalence, and low prevalence of male circumcision. The indigenous ethnic groups of Gambella region have not been practicing traditional male circumcision and the prevalence of HIV is highest of all regions of the country. Now free voluntary medical male circumcision service is available in most government health facilities. However availability of intervention by itself does not mean that it is acceptable by the target population so this study aims to assess the prevalence and level of acceptance of male circumcision and factors associated among indigenous male college students.

Methodology: Institutional based cross-sectional study design was conducted among 782 male indigenous college students from March 28 -29 in Gambella Town. From four colleges two colleges were selected by lottery method. Data were collected using self administered structured and pre-tested questionnaire. Data were entered and analyzed using Epi data 3.1 and 16.0 soft wares respectively. Frequency tables, graphs and descriptive summaries were used to describe the study variables. Both bivariate and multivariate logistic regression analyses were used. We used P-value < 0.05 of 95% CI level as a cut of point to see the strength of association.

Result: Among 736 respondents 317(43.1%) respondents were circumcised. Religion, having a circumcised friend, knowledge on male circumcision, perceived benefits for penile hygiene, STIs prevention and HIV prevention. Fear of pain and fear of complication were also determinants of male circumcision. One hundred seventy (42.4%) of uncircumcised respondents were willing to accept circumcision. Having circumcised friend, perceived benefits of male circumcision for (penile hygiene, STIs prevention and women preference), fear of pain and cultural acceptability were determinants of acceptance of male circumcision among uncircumcised respondents.

Conclusion and Recommendation: Even though prevalence of male circumcision was high compared to similar studies, its not such satisfactory greater than half of the study participants still uncircumcised. The level of acceptance of male circumcision was low compared with other studies. The benefit of male circumcision in enhancing penile hygiene and reducing chance of getting STIs and HIV were facilitators to be circumcised and willing to accept circumcision. Fear of pain was a major barrier of male circumcision. Interventions should be focused on promoting the benefits and eliminating the myths of male circumcision.

Key words; male circumcision, acceptance, HIV, indigenous

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DEDICATION

This thesis is dedicated to my beloved mother

W/o WUBALECHE BELETE

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Acronyms

AIDS	Acquired Immune Deficiency Syndrome
EDHS	Ethiopia demography and health survey
HAPCO	Federal HIV/AIDS Prevention and Control Office
MOH	Ministry of Health
HIV	Human Immune Deficiency Virus
GTEHSC	Gambella Teachers Education and Health Science College
GTVETC	Gambella Agricultural Technique and Vocational College
Jhpiego	John Hopkins program for international education in Gynecology and Obstetrics
MC	Male Circumcision
MMC	Medical Male Circumcision
NGO	Non Governmental Organization
SNNPR	South Nation Nationalities and Peoples Region
SPSS	Statistical Software Package for Social Science
STS	Stratified Samplinig
SRS	Simple Random Samplinig
UNAIDS	United Nation office for HIV AIDS
WHO	World Health Organization

Chapter one Introduction

1.1 Background of the study

Globally, 34.0 million [31.4 million–35.9 million] people were living with HIV at the end of 2011. An estimated 0.8% of adults aged 15-49 years worldwide are living with HIV, although the burden of the epidemic continues to vary considerably between countries and regions. Sub-Saharan Africa remains most severely affected, with nearly 1 in every 20 adults (4.9%) living with HIV and accounting for 69% of the people living with HIV worldwide (1). Ethiopia is among the countries most affected by the HIV epidemic. With an estimated adult prevalence of 1.5%, it has a large number of people living with HIV (approximately 800,000); and about 1 million AIDS orphans(2).

In Ethiopia HIV epidemic variations were also observed among administrative regions. According to the 2011 EDHS, HIV prevalence ranges from 0.9% to 6.5% in Gambella region. Prevalence of HIV in Gambella was four times higher than the national rate. This report also showed that the prevalence of HIV among the uncircumcised men's (7.9%) were almost double compared with circumcised men's (4.1%) (3).

According to WHO Bulletin, around 20% of men globally, and 35% in developing countries are circumcised for religious, cultural, medical and other reasons. In Africa the practice varies from country to country. Researchers have noted significant variation in HIV prevalence in certain African and Asian countries that seemed to be associated with levels of male circumcision in the community. In areas where circumcision is common, HIV prevalence tends to be lower, and conversely areas of higher HIV prevalence overlapped with region where male circumcision is not commonly practiced (4).

In 2007, WHO and UNAIDS recommended including male circumcision as an additional HIV prevention program component in settings with high HIV prevalence and low levels of male circumcision. Following VMMC becomes an additional intervention for HIV prevention, 13 countries in East and Southern Africa were identified for expanding VMMC. The Gambella Province in Ethiopia was subsequently added, making Ethiopia the 14th priority country (5). This recommendation was based on many different epidemiological evidence which shows that MC is effective in reducing HIV acquisition by approximately 60% among males during heterosexual sex (6–8).

1.2. Statement of the problem

Large-scale uptake of male circumcision services in African countries with high HIV prevalence and where male circumcision is not now routinely practised, could lead to substantial reductions in HIV transmission and prevalence over time among both men and women. It has been projected that widespread MMC in Africa could avert up to 2 million HIV cases and 300,000 deaths over the next 10 years (4). As of December 2012, 3.2 million African men had been circumcised through specific services for voluntary medical male circumcision. The cumulative number of men circumcised almost doubled in 2012, rising from 1.5 million as of December 2011. Still, it is clear that reaching the estimated target number of 20 million in 2015 will require a dramatic acceleration (9).

The indigeneous ethnic groups of Gambella does not have male circumcision practice, where as the prevalence of HIV is highest of all regions of the country which is four times than national prevalence. In 2009 MOH and FHAPCO launched medical male circumcision as an additional strategy for HIV prevention in this regional state. Since then Gambella regional health bureau in collaboration with Jhpiego/Ethiopia has providing free of charge VMMC for males between 15- 29 years of age. Now the service is available in 1 hospital, 10 health centers, and 8 outreach sites in various modes of service delivery, these include stand-alone clinics, routine facility-based services into which the male circumcision package of interventions is also integrated with outreach and campaign services. However, prevalence of circumcision is still very low among indigenious ethnic groups (Angnua, 12.3%, Nuer, 6.8% and Majang, 1.7) (10). This indicates that there might be a problem with acceptance and availability of the service by itself does not always translate in to acceptance. Despite of this there was no prior research try to assess the prevalence and acceptance of male circumcision and associated factors among target groups. Therefore this study aims to determine the prevalence and acceptance of male circumcision and to assess associated factors.

As explained in the above statements all the five ethnic groups does not have male circumcision practice. Hence, colleges are best places to adders all of them where students gathered from all Administrative zones (Angua, Nuer and Majang) of the region.

Chapter two Literature review

2.1 Male Circumcision and HIV Infection

Male circumcision is the surgical removal of some or all of the foreskin (or prepuce) from the penis. Compared with the dry external skin surface of the glans penis and penile shaft, the inner mucosa of the foreskin has less keratinization (deposition of fibrous protein) and a higher density of target cells for HIV infection. Some laboratory studies have shown the foreskin is more susceptible to HIV infection than other penile tissue, although others have failed to show any difference in the ability of HIV to penetrate inner compared with outer foreskin surface. The foreskin may also have greater susceptibility to traumatic epithelial disruptions (tears) during intercourse, providing a portal of entry for pathogens, including HIV. In addition, the microenvironment in the perpetual sac between the unrestricted foreskin and the glans penis may be conducive to viral survival. Finally, the presences of other sexually transmitted diseases (STDs), which independently may be more common in uncircumcised men, increase the risk for HIV acquisition (11).

A systematic review and meta-analysis that focused on male circumcision and heterosexual transmission of HIV in Africa was published in 2000. It included 19 cross-sectional studies, 5 case-control studies, 3 cohort studies, and 1 partner study. A substantial protective effect of male circumcision on risk for HIV infection was noted, along with a reduced risk for genital ulcer disease. After adjustment for confounding factors in the population-based studies, the relative risk for HIV infection was 44% lower in circumcised men. The strongest association was seen in men at high risk, such as patients at STD clinics, for whom the adjusted relative risk was 71% lower for circumcised men (12).

Three randomized controlled clinical trials (RCTs) were conducted in Africa to determine whether circumcision of adult males reduces their risk for HIV infection. The controlled follow-up period in all three studies was stopped early, and the control group offered circumcision when interim analyses found that medical circumcision significantly reduced male participants' HIV infection risk. The controlled follow-up period in the study in South Africa was stopped in 2005, and the controlled follow-up periods for the studies in Kenya and Uganda were stopped in 2006. In all three studies, a small number of men who had been assigned to be circumcised did not undergo the procedure; likewise, a small number of men assigned to the control groups did undergo circumcision. When the data were reanalyzed to account for these occurrences, men who had been circumcised had a 76% (South Africa), 60% (Kenya), and 55%

(Uganda) reduction in risk for HIV infection compared with those who were not circumcised (6–8).

2.2 Determinants of Male circumcision

Historically, male circumcision has been associated with religious practice and ethnic identity. Circumcision was practised among ancient Semitic peoples, including Egyptians and Jews. In the Jewish religion, male infants are traditionally circumcised on their eighth day of life, providing there is no medical contraindication. Muslims are the largest religious group to practise male circumcision. As part of their Abrahamic faith, Muslims practise circumcision as a confirmation of their relationship with God; the practice is also known as *tahera*, meaning “purification”(13). The Coptic Christians in Egypt and the Ethiopian Orthodox Christians practise two of the oldest surviving forms of Christianity and retain many of the features of early Christianity, including male circumcision (to take one instance, 97% of Orthodox men in Ethiopia are circumcised) . In some West African countries, circumcision prevalence tends to be lower among those of traditional religion than among Christians (66% vs. 93% in Burkina Faso, 68% vs. 95% in Ghana). Although religion and ethnicity can be closely correlated, religion can be a strong determinant within an ethnic group. Foreexample, among the Mole-Dagbani in Ghana 97% of Muslims are circumcised, 78 % of Christians, 43% of those with traditional religion and 52% of those with no religion (14).

Prevalence of circumcision within a country can vary dramatically by ethnicity. For example, although an estimated 84% of all Kenyan men are circumcised, the percentage is much lower among the Luo and Turkana ethnic groups (17% and 40%, respectively) (14). Similarly, male circumcision is not practised among the Jopadhola, Acholi and other Luo-speaking River-Lake Nilotic groups in Uganda and southern Sudan, from where the Luo migrated (15). EDHS 2011 shows that 92 percent of Ethiopian men age 15-49 were circumcised. The percentage of men who are circumcised increases with age. Men living in urban areas are somewhat more likely to be circumcised than men in rural areas (98 percent versus 90 percent). Circumcision is close to universal in most regions, except in Gambela and SNNP regions (76 and 79 percent, respectively) (3). The prevalence of circumcision in Gambella region was 76 %; this EDHS data had included both new comers and indigenous ethnic groups (Agnua, Nuer, Majang, Upo and Komo) which have not practicing male circumcision either traditionally or religiously when we consider this scenario the prevalence among indigenous ethnic group would get lower than the report.

Demographic and Health Surveys in sub-Saharan African countries show no consistent association with socioeconomic status. For example, in the United Republic of Tanzania, higher rates of circumcision are seen among men with higher levels of education, of higher socioeconomic status and living in urban areas, whereas in Lesotho, circumcision is most common among men with no education, in the lowest wealth quintile and living in rural areas (13).

2.3 Prevalence and Acceptance of Male circumcision

One concern around the potential for male circumcision as an HIV prevention measure is that it may not be acceptable in communities that do not traditionally circumcise. A cross sectional study design which was conducted among heterosexual male in 2008 to assess acceptability of medical male circumcision for HIV/AIDS prevention in Thailand the prevalence and acceptance of male circumcision were 13.4% and 14.2% respectively (16). Meta-analysis which is done in 2006 by reviewing 13 studies which are related to acceptance of medical male circumcision for HIV prevention in Sub Saharan countries, the median proportion of uncircumcised men willing to become circumcised was 65% which was varied from 29% in Uganda to 87% in Swaziland. The variation depended in part on how the question was posed and the context of the study. For example, one of the highest acceptability levels (81%) was recorded in Botswana after an informational session in which participants were told about the health benefits and risks associated with the procedure (17). Another study done in Kenya 1999, the prevalence and acceptance of male circumcision were 12 % and 60 % respectively among 100 male respondents (18).

2.4 Factors associated with acceptance of male mircumcision

After the findings that shows the benefit of medical male circumcision for prevention of HIV, STI, penile cancer and other diseases then WHO/UNAIDS recommended as HIV/AIDS prevention strategy various studies have been conducted on acceptance of MMC in different counties where low prevalence of male circumcision, with special emphasis on populations that have not traditional male circumcision practice. Those researches has identified socio demographic, perceived benefits and perceived barriers as a major determinant of circumcision status and acceptance of MC.

2.4.1 Socio Demographic factors

In the above meta analysis Religion was a major determinant of circumcision acceptability. MC is universally associated with Islam. It is also considered fundamental to some minority

Christian and animist sects. There was no clear consensus on compatibility of MC with Christian beliefs. Great variability in perceptions of Christian churches' positions on MC was described by different study populations, ranging from condemning MC as a pagan practice to viewing MC as consistent with Christian tradition according to the Bible and Jesus' circumcision status. In South Africa 38% of circumcised and 32% of uncircumcised study participants described circumcision as "forbidden" by their religion. Sukuma study participants in Tanzania felt that the Christian religion did not theologically promote MC (17).

A cross sectional study which was conducted in Botswana, 2012 to assess acceptance of MMC among adolescent boys and their parents. In this study place of residence and being christian were predictors of acceptance of male circumcision, but the study had not treat parental income as explanatory variable, it might have a chance to predict the outcome variable. A situational analysis which was done by Tanzania Ministry of Health and National Institute of Medical research in 2009, place of residence and marital status were associated with acceptance of male circumcision, for example non-married males were 1.5 times more likely to accept circumcision compared to those who were married (19).

2.4.2 Facilitators to accept medical male circumcision

Preliminary reports suggest that improved genital hygiene, HIV prevention, STI protection, sexual pleasure for self and to their partners and improved sexual performance may facilitate MC acceptability. A study done in China in 2010 among 2219 male respondents to assess factors that are associated with acceptance of MC, from those who were willing to accept (989), 60.3% thought it would improve penile hygiene; 59.4% were willing to remove redundant foreskin; 50% thought saw MC as a way to prevent penile cancer; and 34.2% believed MC would prevent HIV and STDs (20). Similar study which was done in Kenya men who prefer to be circumcised were 4.9 times more likely to believe it is easier for an uncircumcised man to contract STDs (95% CI/1.58/14.9) and 2.3 times more likely to believe that it is easier for uncircumcised men to acquire HIV/AIDS than men who did not accept MC (18).

How circumcision is perceived to influence sexual drive, sexual performance, and sexual pleasure for the man himself or for his partner is likely to influence decision making around MC. Most studies assessed three factors associated with sexual activity based on circumcision status: sexual performance, sexual pleasure for men, and sexual pleasure for women. Fifty percent of circumcised and 30% of uncircumcised participants in South Africa believed that MC increased sexual performance, while only 21% and 14%, respectively, believed that MC

decreased sexual pleasure (21). Similar study in South Africa but in different study area shows that men were more willing to be circumcised if they thought that circumcised men enjoyed sex more than uncircumcised men (AOR = 7.73, 95% CI 1.6 – 38.3) (22). A cross-sectional study conducted in Jamaica to assess factors that are associated with MMC, males who believe circumcision improves sexual performance and women who prefer circumcised males are more likely to accept male circumcision (23).

2.4.3 Barriers to Circumcision

MC is a proven effective prevention intervention with known medical benefits. Financial and other barriers to access male circumcision should be reduced or eliminated. The three most salient barriers to the acceptability of male circumcision are fear of pain, concerns for safety and the cost of the procedure. In areas where traditional circumcision is uncommon, the preference was overwhelmingly for a medical practitioner to be the provider, as this was perceived to be safer. There are relatively few data on complication rates following circumcision in developing countries, a study from Nigeria reported that, among 1563 boys circumcised at the hospital, five (0.3%) developed minor complications (24).

A study from Thailand to assess acceptability of MC for the prevention of HIV among high-risk heterosexual men in Thailand, majority of the men reported no interest in circumcision for various reasons, including fear of pain and other risks of surgery. In this study from those who were not accept MC, 79.6% perceived it might be painful, 79.1% perceived it might cause bleeding of the penis after surgery and 59.2% perceived it might cause an infection of penis after surgery (16). Similar study done in China the majority (81.1%) reported that it would not be effective for them and 10.4% were worried about the reduction of sexual ability. A study in Botswana Pain and the possibility of complications were the most frequently reported reasons by boys for not wanting to be circumcised. Among adolescents, 129 (49%) boys indicated that they were principally “worried about pain” and 51 (19%) indicated that they were principally worried about “health problems during or after the operation” (25).

In the above review culture and religion were also major barriers to accept MC in different countries. Lack of circumcision was mentioned as an element of the ethnic identity of those who do not circumcise traditionally. However, remaining with one’s foreskin is not considered crucial to one’s own ethnic identity. It serves as an ethnic marker primarily used by others. In both Botswana and Swaziland studies, only 2% of participants, for example, felt that circumcision would lead to disapproval by their community, although in Botswana 22% cited “cultural reasons” as a factor in their decision not to circumcise their male child. It is

fundamentally different from belonging to an ethnic group that does practice traditional circumcision. For the Yao in Malawi, for example, or the Lunda and Luvale tribes in Zambia, or the Bagisu in Uganda, Submitted, it is unacceptable to remain uncircumcised, to the extent that forced circumcisions of older boys are not uncommon (17).

Religion is a major determinant of circumcision acceptability. MC is universally associated with Islam. It is also considered fundamental to some minority Christian and animist sects. There was no clear consensus on compatibility of MC with Christian beliefs. Great variability in perceptions of Christian churches' positions on MC was described by different study populations, ranging from condemning MC as a pagan practice to viewing MC as consistent with Christian tradition according to the Bible and Jesus' circumcision status. In South Africa 38% of circumcised and 32% of uncircumcised study participants described circumcision as "forbidden" by their religion. Sukuma study participants in Tanzania felt that the Christian religion did not theologically promote MC, while circumcision services were known to be available in church-run hospitals. Lukobo and Bailey describe the prevalent Zambian perception of circumcision being linked with Muslim or animist Chawa heritage, with several participants also reporting the belief that Christians should practice MC since Jesus was circumcised and the Bible teaches the practice. Similar findings were reported by in Malawi. In Kenya the Nomiya Church and a few other small Christian sects require circumcision for church membership (17).

In the above literatures perceived risk of HIV/AIDS of individuals were not consider as a factor which affect MC acceptance, so this study will try to assess perceived risk of HIV/AIDS among respondents and it's effect on circumcision status and acceptance of male circumcision.

Conceptual frame work

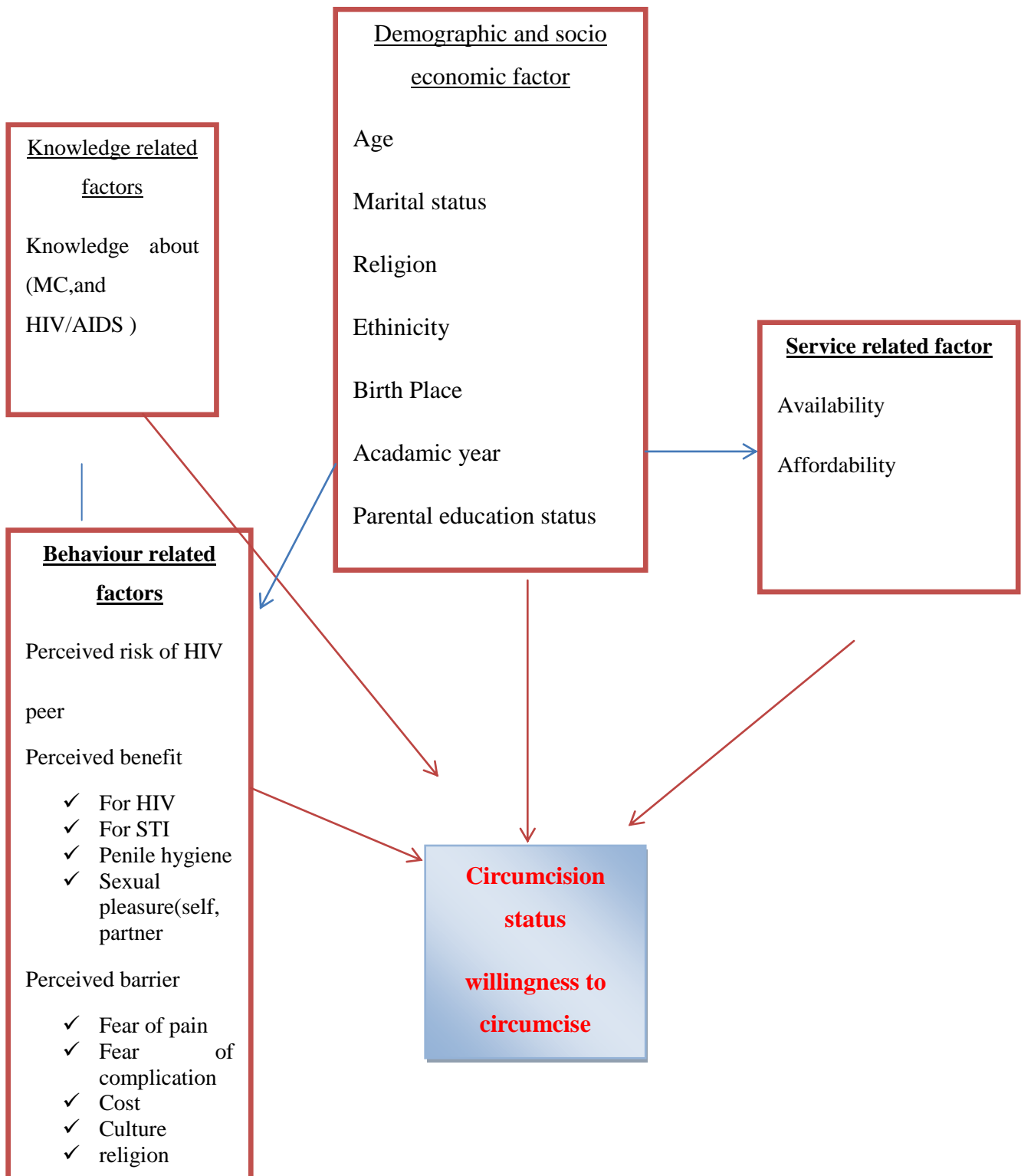


Figure 1 Schematic presentation of conceptual frame work for the study of prevalence and acceptance of male circumcision among indigenous male college students. Gambella Town

Significance of the study

There is no traditional male circumcision practice with in indigenous ethnic groups but now the government integrated MC to HIV prevention strategies, and VMMC is being provided by public health facilities with in the region. However, MC practice is strange for those communities who doesnt have such practice previously, and availability of intervention by itself doesnt mean it is acceptable.

These college students are gathered from all districts and represents all communities in the region. In addition to this they will be teachers, health professionals and agricultural development agents after graduation and then recruited in all districts. The nature of their work makes them close to communities and can serve as a role model. So investigating MC acceptance of the students and identifying barriers and facilitators to accept MC then intervening based on this result can play unindispensable role to increase level of MC acceptance with in the region as a whole.

Finally the research is important to policy makers, program designers and implementers to design effective and efficient strategies that increase uptake of MC dramatically , this will prevent HIV infection which is attributable by being uncircumcised.

Chapter three Objective

3.1 General Objective

- ❖ To determine prevalence and acceptance of male circumcision and to assess associated factors among indigenous male college students, Gambella Town 2014.

3.2 Specific Objectives

- To determine prevalence of male circumcision among indigenous male college students.
- To assess level of acceptance of male circumcision among uncircumcised indigenous male college students.
- To assess factors associated with circumcision status among indigenous male college students.
- To assess factors associated with acceptance of medical male circumcision among indigenous male college students.

Chapter four Methodology

4.1 Study Area and study period

The study was carried out from March 28 - 29 in Gambella Town, which is located 777 km in the south west of Addis Ababa. Gambella Town is the capital city of Gambella regional state characterized by hot and humid climate. There is one youth club, eight private clinics, one Public health center and one regional hospital which providing health care service for the community. One hospital and one health center gives voluntary medical male circumcision service without payment routinely and as a campaign in the town. There are four Colleges from which two of them (Gambella teachers and health science College and Gambella agricultural T/V/E/T College) were selected randomly for this study.

4.2 Study design

Institution based cross sectional study design was conducted.

4.3 Population

4.3.1 Source population

All indigenous regular male College students of Gambella Town enrolled in 2013/2014 were source population.

4.3.1 Study population

The study population are all indigenous regular male students of the two selected Colleges, 2013/2014.

4.4 Eligibility criteria

4.4.1 Inclusion criteria

Only indigenous male regular students and those who consented were included in the study.

4.4.2. Exclusion criteria

Students who dropped out, withdrawn, and who dismissed from the college during the study period were not included in the study.

4.5 Sample size and sampling technique

4.5.1 Sample size determination

The sample size for this study calculated using the single population proportion formula. The value of p is taken as 50.3% which was prevalence of male circumcision taken from Rwanda study (26). 5 % margin of error and 95% level of confidence were taken.

$$n = \frac{(z\alpha/2)^2 * p(1-p)}{d^2}$$

Where n - required sample size

$z\alpha/2$ – value at $\alpha = 0.05$ or critical value for normal distribution at 95% C.I (1.96)

p – prevalence of male circumcision (0.503)

d – margin of error (0.05)

By this the sample size will be 384. Finite population correction formula was used since the total population is less than 10,000.

$$n_f = \frac{n_i}{1 + n_i/N}$$

The final sample size was 782 with considering design effect (2) and 15 % non response rate.

Since the sample size required for prevalence of male circumcision is higher than the sample size required for acceptance of male circumcision, a total sample size of 782 was taken for the whole study.

4.5.2. Sampling technique and procedures

Multi stage sampling technique was used to select the study participants. Two colleges were selected from four colleges by lottery method. Totally there are three streams, health and education stream from GTEHSC and agricultural stream from GATVTEC. Based on the name list of students that contain their ethnic group and departments, a preliminary survey was done to select students that fulfill the inclusion criteria. Then Proportional to the size of streams the numbers of study participants were allocated. Finally from the three streams, study participants

were selected by simple random sampling technique (by using SPSS). List of student's Identification number was used as sampling frame.

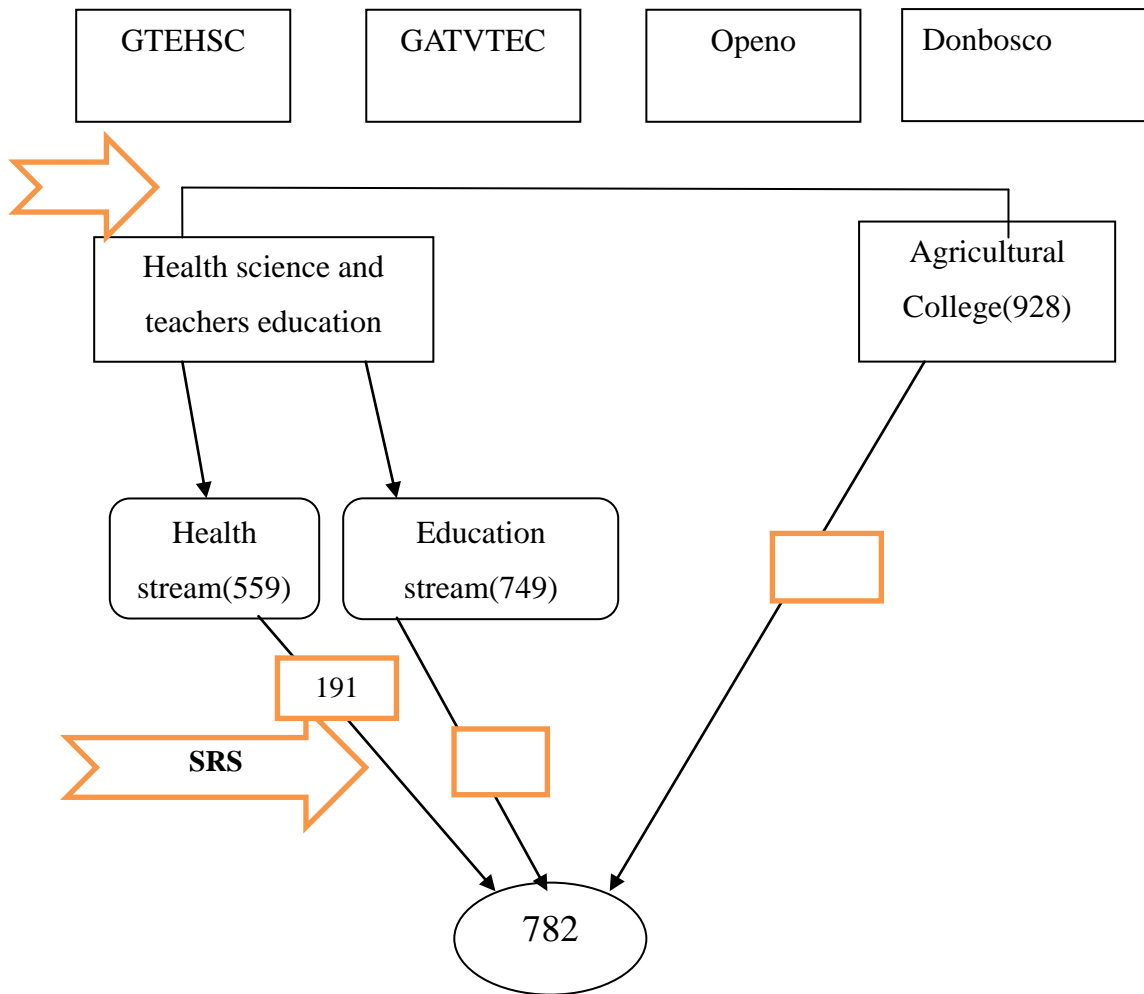


Figure 2 Schematic Presentation of sampling procedure

4.6. Data collection tools and techniques and measurement

4.6.1. Study Variables

Dependent Variables

Circumcision status and acceptance of male circumcision among uncircumcised study participants.

Independant variable

Demographic and socioeconomic factors (age, ethnicity, religion, birth place, marital status, parental income, parental educational status and family income).

- Knowledge on MC, and HIV.
- Behavioural factors

- ✓ Perceived risk of HIV/AIDS
- ✓ Percived benefit (as HIV prevention, penile hygiene, STI prevention, sexual pleasure for self and sexual pleasure for partner.
- ✓ Perceived barrier (fear of pain, fear of complication, cost, culture, and religion
- ✓ Peer pressure
- Service related factors (information about)
 - ✓ Availability
 - ✓ Cost

4.6.2 Data collection tools and procedures

Eight data collection facilitators who are diploma Nurses and two BSc holder supervisors were recruited for questionnaire administration and supervision, respectively. Data were collected using a self-administered structured questionnaire which is adapted from WHO male circumcision situational analysis tool kit and other similar studies (27). First prepared in English then translated into Amharic. The questionnaire was back translated into English and checked for consistency. Both amharic and english questionnaires were used. The self administered questionnaires were distributed to those sampled students by the facilitators after explanation on the purpose of the study then the questionnaires were collected by facilitators upon completion.

4.8. Data Quality Management

Data quality was assured during instrument development, data collection, coding, entry and analysis. The questionnaire first translated to Amharic language and retranslated to English before data collection and different translators were used to keep the consistency of the questionnaire and necessary corrections were taken. Then facilitators and supervisors were trained about the purpose of the study and how to administer the questionnaire.

The 5% of the questionnaires were pre tested in Openo College which is not selected for this study before the actual data collection period and then appropriate correction was taken accordingly. During data collection, questionnaire was checked for its completeness on daily basis by immediate supervisors. Incorrectly filled or missed questionnaires were discarded from analysis.

There was a discussion with facilitators and supervisors accordingly if there is a problem encounter during data collection.

4.9. Data Processing and Analysis

EPI –data version 3.1 and SPSS version 16 Statistical softwares were used for data entry and analysis respectively. After organizing & cleaning the data, frequencies & percentages were calculated to all variables that are related to the objectives of the study. Odds ratio with 95 % confidence interval was used through binary logistic regression to examine associations between dependent & independent variables. Then variables whose p-value less than 0.25 during bivariate analysis were candidates for multivariate logistic regression analysis. Finally multivariate analysis was done to determine the separate effect of independent variables on the outcome variable

4.10. Operational Definition

Acceptance of MC: In this study acceptability refers to willingness to undergo MMC for HIV prevention after a short written explanation about the benefit of MC in reducing the chance of getting HIV/AIDS,

Circumcision status: Self-report circumcision status which was measured by asking the participants a single question “Are you circumcised”.

Indigenous : Peoples who belongs to the five native ethnic group of the region (Nuer, Angnua, Majang, Upo and Komo)

Knowledge on HIV/AIDS: The knowledge consisted of 9 item questions that focused mainly on the transmission and prevention of HIV /AIDS. The level of knowledge categorized as poor and good level of knowledge based on the average score. A score 60% and above (6 and above) of the total out of 100 % was considered as good level of knowledge and below 60% as poor knowledge on HIV/AIDS (28).

Knowledge on MC: participants who have heard about MC and selects the appropriate definition of male circumcision were considered as knowledgeable, others who did not fulfil this catagorizes in to not knowledgeable (27).

Risk perception for HIV/AIDS: Participants were requested to report their level of perceived risk of HIV/AIDS acquisition by asking them that “do you feel you are at risk of HIV/AIDS? Student’s Yes / No responses were dichotomized into “high” and “low” perceived risk to HIV/AIDS infection. Those who say “Yes” were categorized under high perceived risk to HIV/AIDS infection.

4.11 Ethical Clearance

Ethical clearance was obtained from ethical committee of Jimma University, college of public health and medical science. Permission paper was obtained from Administration of Gambella Teachers Education and Health Science College and Gambella agricultural College. Similarly after clear discussion about the actual study or explaining of purpose of the study, written consent was obtained from each study participants while the study subjects right to refuse was respected. Identification of study participants by name was avoided to assure the confidentiality of the information obtained.

4.12 Dissemination plan

The findings of this study will be disseminated to college of public health and medical science and department Epidemiology, Gambella Regional Health Bureau, Gambella teaching and health science College, Gambella agriculture and TVTE college. The findings will be also disseminated to all stakeholders that have a contribution to strengthen voluntary medical male circumcision. Finally effort will be made to present in various seminars and workshops and for publication in international journal.

Chapter five: Result

Socio-Demographic Characteristics of participants

A total of 782 students were participated in the study. However, 46 students didn't fill appropriately the questionnaires thus excluded from analysis, making the response rate 94%. Out of 736 respondents 317 (43.1%) were from Agriculture stream, 236 (32.1%) were from Education stream the rest 183(24.9%) were from Health science stream, the mean (\pm SD) age of the respondents was 23.89 (4.47) ranging from 17 to 37 years old.

Majority of the respondents 459 (62.4%) were born in rural areas. Four hundred seven (55.3%) of the respondents were Protestant. Majority of the respondents 389(52.9%) were Nuer by ethnicity and followed by Angua 255 (34.6%), and Majang 57 (7.7). Two hundred thirty nine (32.5%) of respondents were first year, 267(36.3%) were second year and the remaining 230 (31.2%) were third year students. More than half of the respondents 384 (52.2%) were single. From those married respondents 68(20%) had more than one wife. (Table 1)

Majority of the respondents 336 (45.7%) and 482 (65.5%) had unable to read and write father and mother respectively. Two hundred sixty six (36.1%) of respondents father were farmer and 622(84.5%) of respondents mother were housewife. Two hundred three (27.6%) of respondents monthly family income were between 501 and 1000 ethiopian birr, 108 (14.8) respondents didn't gave a response on their family monthly income. (Table 2)

Table 1 Socio-demographic characteristics of participants. Gambella Town, March 2014

Characteristics	Frequency	Percent
<i>Age of respondents(n = 736)</i>		
17 -24	454	61.7
>24	282	38.3
<i>Stream(n = 736)</i>		
Agriculture	317	43.1
Education	236	32.1
Health science	183	24.9
<i>Academic year</i>		
1st year	239	32.5
2nd year	267	36.3
3rd year	230	31.2
<i>Religion</i>		
Protestant	407	55.3
Catholic	130	17.7
Adventist	92	12.5
Orthodox	50	6.8
Muslim	11	1.5
Others	46	6.2
<i>Place of birth</i>		
Rular	459	62.4
Urban	277	37.6
<i>Ethnicity</i>		
Nuer	389	52.9
Angua	255	34.6
Majang	57	7.7
Upo	14	1.9
Komo	21	2.9
<i>Marital status</i>		
Married	343	46.6
Single	384	52.2
Divorsed	9	1.2
<i>No. of wife</i>		
One	272	80
More than one	68	20

Table 2 Parental socio-demographics characteristics of participants, Gambella Town, March 2014

Characteristics	Number	Percent
<i>Father educational status(n = 736)</i>		
Unable to read and write	336	45.7
Read and write	99	13.5
Grade 1-4	71	9.6
Grade 5-8	71	9.6
Grade 9-12	51	6.9
Above 12	108	14.7
<i>Father occupation</i>		
Unemployed	91	12.4
Gov employee	218	29.6
Private employee	15	2.0
Pastoral	133	18.1
Farmer	266	36.1
Others	13	1.8
<i>Mother educational status</i>		
Unable to read and write	482	65.5
Read and write	79	10.7
Grade 1-4	73	9.9
Grade 5-8	49	6.7
Grade 9-12	27	3.7
Above 12	26	3.5
<i>mother occupation</i>		
Housewife	622	84.5
Gov employee	75	10.2
Private employee	24	3.3
Others	15	2.0
<i>Monthly family income in ET.birr</i>		
< 500	134	18.2
501 – 1000	203	27.6
1001 - 2000	161	21.9
>2001	130	17.7
No response	108	14.7

Prevalence of male circumcision

Three hundred seventeen respondents (43.1%) were circumcised. Of those who were circumcised reasons for circumcision were health benefit (41.2%) penile hygiene (22.4%), and sexual benefit (19.5%). (Fig 3).

Circumcised respondents were asked about place where they get circumcised. Majorities (96.8%) were circumcised in health facility.

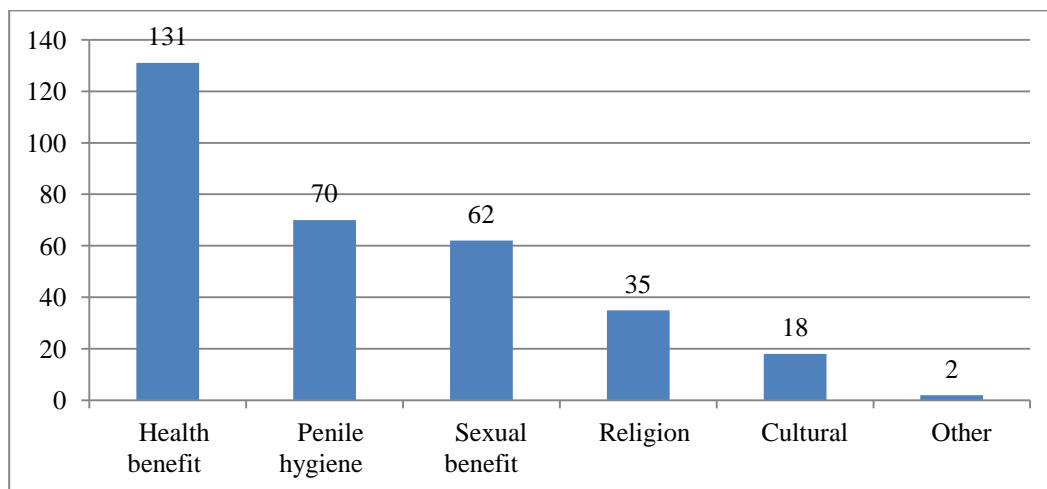


Figure 3 Reported reasons to circumcise among male college students. Gambella Town March 2004

Uncircumcised respondents were asked the reason why they do not circumcised. Among the total uncircumcised respondents, majority (38.5%) gave a reason related to culture, followed by (28.85% personal reason. (Fig 4)

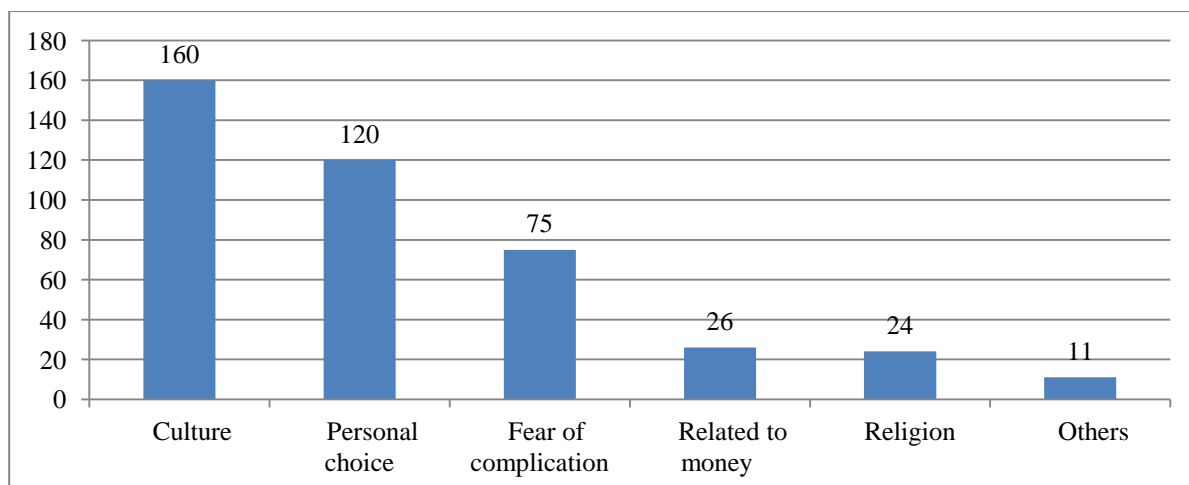


Figure 4 Reported reasons to uncircumcised among male college students. Gambella Town March 2014

Uncircumcised respondents were asked about their willingness to circumcise after a short written explanation about the benefit of male circumcision in reducing the chance of getting

HIV/AIDS, one hundred seventy nine (42.4%) uncircumcised respondents were willing to accept male circumcision.

Prevalence of circumcision with selected socio demographic characteristics

Around 317 (43.1%) respondents were circumcised. One hundred eighty five (58.4%) were from Gambella teachers education and health science college and 132 (41.6%) were from Gambella agricultural T/V/T/E college. The proportion of circumcised respondents was slightly higher among Gambella teachers education and health science respondents. Proportion of circumcised men were less in first year students compared with second and third year respondents. The proportion of male circumcision among third year students was 124 (53.9%), 114 (42.7%) among second year, and 79 (33.1%) among first year respondents. The prevalence of circumcision was slightly higher among Muslim, 8 (72.7%), and Orthodox, 30(60%) respondents than Adventist 52 (56.5%), Catholic, 54 (41.5%) Protestant, 152 (37.3%), and 21 (45.7%) other religion followers.

In this study male circumcision was not associated with ethnicity. The prevalence of circumcision was 169 (43.4%) among Nuer respondents, 112 (44.1%) among Agnua respondents, 23 (39.7%), among majang respondents 9 (42.9%) among Komo respondents, and 4 (28.6%) among Upo respondents (χ^2 , p- value = 0.807). (Table 3)

Table 3 Distributions of male circumcision on selected sociodemographic characteristics of indigenous male college students. Gambella Town, March 2014

Characteristics	Circumcision status	
	Circumcised(No/%)	Uncircumcised No/%)
<i>Type of stream</i>		
Education	99(41.9%)	137(58.1%)
Health science	86(47.0%)	97(53%)
Agriculture	132(41.6%)	185(58.4%)
<i>Academic year</i>		
First year	79(33.1%)	160(67%)
Second year	114(42.7%)	153(57.3%)
Third year	124(53.9%)	106(46.1%)
<i>Place of birth</i>		
Urban	131(47.3%)	146(52.7%)
Rular	186(40.5%)	273(59.5%)
<i>Religion</i>		
Protestant	152(37.3%)	255(62.7%)
Catholic	54(41.5%)	71(58.4%)
Adventist	52(56.5%)	40(43.5%)
Orthodox	30(60.0%)	20(40.0%)
Muslim	8(72.7%)	3(27.3%)
Others	21(45.7%)	25(54.3%)
<i>Ethnicity</i>		
Nuer	169(43.4%)	220(56.54%)
Angua	112(44.1%)	142(55.87%)
Majang	23(39.7%)	35(60.3%)
Upo	4(28.6%)	10(71.4%)
Komo	9(42.9%)	12(57.1%)
<i>Age group</i>		
17 – 24	199(43.8%)	255(56.2%)
>24	118(41.8%)	164(58.2%)
<i>Monthly family income</i>		
<500	93(38.4%)	149 (61.5%)
500-1000	80(39.4%)	123(60.6%)
1001-2000	73(45.3%)	88(54.7%)
>2001	71(54.6%)	59(45.3%)
<i>Marital status</i>		
Single	173(45.1%)	211(55.0%)
Married	140(40.8%)	198(59.2%)
Divorsed	4(44.4%)	5(55.6%)

knowledge of male circumcision and HIV/AIDS

Five hundred eighty (79%) of study participants had awareness about male circumcision, 493 (67%) have a good knowledge on male circumcision. There was a huge gap between circumcised and uncircumcised respondents on their knowledge on male circumcision, 300 (94.6%) of circumcised respondents had good knowledge where as only 193 (46.1%) of

uncircumcised respondents had good knowledge on male circumcision [COR= 20.664 95% CI (12.224, 34.934)].

Seventy six percent (559) the study participants had good knowledge on HIV/AIDS. From those circumcised respondents 259 (82%) had good knowledge on HIV/AIDS, and from uncircumcised respondents 300 (71.6%) had a good knowledge on HIV/AIDS [COR= 1.771 C.I 95%(1.242, 2.527)]. But their association was not significant at multivariate analysis. During this study respondents were asked their life time experience on STIs sign and symptoms. Thus, 85 (11.5%) of the respondents had history of STIs, but not associated with circumcision status [COR=1.365, 95% CI (0.855, 2.179)]. (see Table 4)

Table 4 Circumcision status, Knowledge of Male circumcision, STI history and knowledge of HIV among male college students. Gambella Town March 2014

Characteristics	Circumcision status		
	Yes	No	COR (95% CI)
<i>Knowledge on MC</i>			
Knowledgable	300(60.9%)	193(39.1%)	20.664(12.224, 34.934).
Less knowledgable	17(7.0%)	226(93.0%)	1.00
<i>Knowledge on HIV/AIDS</i>			
Knowledgable	259(46.3%)	300(53.7%)	1.771(1.242, 2.527)
Less knowledgable	58(32.8%)	119(67.2%)	1.00
<i>History of STIs</i>			
Yes	33(38.8%)	52(61.2%)	1.365(0.855, 2.179)
No	284(43.6%)	356(54.7%)	1.00

Facilitators and barriers of male circumcision

Majority of the respondents (63.3%) perceived that male circumcision is usefull in reducing the chance of getting STI and half (50.1%) of the study participant believed that male circumcision reduce chance of getting HIV/AIDS. Some respondents 131 (17.8%) perceived that male circumcision can protect from HIV/AIDS entirely.

Three hundred forty five (46.9%) of the study participants that the procedure of male circumcision would be painful. Forty three percent of the respondents (347) believed that male circumcision is not acceptable in their culture and 269 (36.5%) of the respondents reported that the practice of male circumcision is not acceptable in their religion. (Table 6)

Table 5 Benefits and barriers towards male circumcision among indigenous male college students. Gambella Town March 2014

Characteristics	Frequency	Percent
<i>MC improve hygiene (n= 736)</i>		
Agree	548	74.5
Disagree	145	19.7
Undecided	43	5.8
<i>MC decreases chance of STI (n= 736)</i>		
Agree	466	63.3
Disagree	222	30.2
Undecided	48	6.5
<i>MC decreases chance of HIV (n= 736)</i>		
Agree	369	50.1
Disagree	313	42.5
Undecided	54	7.3
<i>MC prevent HIV entirely (n= 736)</i>		
Agree	131	17.8
Disagree	514	69.8
Undecided	91	12.4
<i>MC increases sexual pleasure (n= 736)</i>		
Agree	290	39.4
Disagree	347	47.1
Undecided	99	13.5
<i>Women prefer circumcised male (n= 736)</i>		
Agree	394	53.5
Disagree	261	35.5
Undecided	81	11.0
<i>MC is painfull (n= 736)</i>		
Agree	345	46.9
Disagree	289	39.3
Undecided	102	13.9
<i>MC would have health complication (n= 736)</i>		
Agree	348	47.3
Disagree	291	39.5
Undecided	97	13.2
<i>MC not acceptable culturally (n= 736)</i>		
Agree	347	47.1
Disagree	276	37.5
Undecided	113	15.4
<i>MC not acceptable in religion (n= 736)</i>		
Agree	269	36.5
Disagree	335	45.5
Undecided	132	17.9

Factors associated with male circumcision

Bivariate and multivariate logistic regression analysis had been conducted to identify factors associated with male circumcision. In bivariate analysis religion, academic year, knowledge on MC and HIV/AIDS, and having a circumcised friend were associated with male circumcision. Agreement with the following statements about perceived circumcision benefits; improvement in penile hygiene, reduction in risk of STIs and HIV, for enhancing sexual pleasure and to be preferred by women were associated with male circumcision.

On other hand agreement with a statement about perceived barriers of male circumcision procedure like fear of pain, fear of complication, religion and cultural acceptability were also associated with male circumcision.

After ascertaining the existence of association between the explanatory variables and the dependent variable, all independent variables which showed association at P_value less than 0.25 with male circumcision during bivariate analysis were fitted to multiple logistic regression model in the backward step wise method to see their independent effect on individual circumcision status.

Variables like religion, knowledge on male circumcision, having circumcised friend, agreement on benefit of male circumcision for enhancing penile hygiene, reducing chance of getting STI and HIV, perceived fear of pain and complication resulted from circumcision procedure were showed a significant association with male circumcision in the backward stepwise multiple logistic regression analysis.

Orthodox followers were more than four times while Adventist followers were three times more likely to circumcised than protestants [AOR=4.495; 95% CI(1.723, 11.729), 2.934 (1.529, 5.63)] respectively. Those respondents who had a good knowledge on male circumcision were 16.564 times more likely [AOR=16.564; 95%CI (9.208, 29.797)] to be circumcised than respondents who had less knowledge on male circumcision. Benefits of male circumcision for penile hygiene and it's protection from STIs and HIV were positively associated with male circumcision. Respondents who believed male circumcision is useful in enhancing penile hygiene were 2.963 times more likely [AOR=2.963; 95%CI (1.525, 5.757)] to be circumcised than respondents who had not such belief, and those who had a belief which male circumcision can decrease chance getting STI and HIV were 2.476 and 2.7 times more likely [AOR=2.476; 95%CI (1.373, 4.465) and 2.7; 95%CI (1.602, 4.55)] to be circumcised than respondents who were not agree with benefits of male circumcision in reducing risk of STIs and HIV.

Perceived pain and complication that would result from circumcision procedure were major barriers of male circumcision. Respondents who believed that the procedure of circumcision would have pain and health complication were less likely to circumcise than respondents who had not such concerns. Those respondents who perceived that male circumcision procedure is painful were 0.244 times less likely [AOR = 0.244 (0.141, 0.421)] to be circumcised than respondents who had not such perception, and those who believed that circumcision procedure would result complication were 0.454 less likely [AOR= 0.454; 95%CI (0.267, 0.772)] to be circumcised than who had not such concern.(see Table 6)

Table 6 Factors associated with circumcision status among indigenous male college students using multivariate logistic regression model Gambella Town, March 2014.

Variables	Circumcision status		OR(95% C.I)	
	Yes	No	Crude	Adjusted
<u>Academic year</u>				
1st year	79 (33.1%)	160 (66.9%)	1.00	1.00
2nd year	114 (42.7%)	153 (57.3%)	1.509(1.050, 2.168) *	1.237(0.736, 2.082)
3rd year	124 (53.9%)	106 (46.1%)	2.369(1.630, 3.444) *	1.298(0.762, 2.213)
<u>Religion</u>				
Protestant	152 (37.3%)	255 (62.7%)	1.00	1.00
Catholic	54 (41.5%)	76 (58.5%)	1.192(0.797, 1.783)	1.175(0.772, 1.787)
Adventist	52 (56.5%)	40 (43.5%)	2.181(1.379, 3.45) *	2.934 (1.529, 5.63) *
Orthodox	30 (60.0%)	20 (40.0%)	2.516(1.381, 4.587) *	4.49(1.723, 11.729)*
Muslim	8 (72.7%)	3 (27.3%)	4.474(1.169,17.12) *	3.723 (0.916, 15.136)
Others	21 (45.7%)	25 (54.3%)	1.409(0.763, 2.604)	1.304(0.688, 2.473)
<u>Had circumcised friend</u>				
Yes	273(53.0%)	242(47.0%)	4.538 (3.126, 6.588)	1.953(1.085, 3.516) *
No	44(19.9%)	177(80.1%)	1.00	1.00
<u>knowledge on MC</u>				
Knowledgable	272(61.0%)	174(39.0%)	20.664(12.22, 34.93) *	16.564(9.21, 29.79) *
Less Knowledgable	30(22.4%)	104(77.6%)	1.00	1.00
<u>knowledge on HIV</u>				
Knowledgable	259(46.3%)	300(53.7%)	1.771(1.242,2.527) *	1.03(0.397, 1.407)
Less Knowledgable	58(32.8%)	119(67.2%)	1.00	1.00
<u>Enhance penile hygiene</u>				
Agree	287(52.4%)	261(47.6%)	5.791(3.787,8.857) *	2.963(1.525, 5.757) *
Not agree	30(16.0%)	158(84.0%)	1.00	1.00
<u>Reduce chance of STI</u>				
Agree	267(57.3%)	199(42.7%)	5.904(4.128,8.443) *	2.476(1.373, 4.465) *
Not agree	50(18.5%)	220(81.5%)	1.00	1.00
<u>Reduced chane of HIV</u>				
Agree	214(58.0%)	155(42.0%)	3.539(2.602,4.813) *	2.7(1.602, 4.55) *
Not agree	103(28.1%)	264(71.9%)	1.00	1.00
<u>Increases sexual pleasure</u>				
Agree	150(51.7%)	140(48.3%)	1.79(1.326,2.416) *	1.15(0.7, 1.89)
Not agree	167(37.4%)	279(62.6%)	1.00	1.00
<u>Women prefers circumcised male</u>				
Agree	192(48.7%)	202(51.3%)	1.65(1.228, 2.218) *	0.964(0.558, 1.664)
Not agree	125(36.5%)	217(63.5%)	1.00	1.00
<u>Circumcision has pain</u>				
Agree	106(30.7%)	239(69.3%)	0.378(0.234,0.432) *	0.244(0.141, 0.421) *
Not agree	211(54.0%)	180(46.0%)	1.00	1.00
<u>will lead to complication</u>				
Agree	100(28.7%)	248(71.3%)	0.318(0.234,0.432) *	0.454(0.267, 0.772) *
Not agree	217(55.9%)	171(44.1%)	1.00	1.00
<u>Culturally not acceptable</u>				
Agree	116(33.4%)	231(66.6%)	0.47(0.348, 0.633) *	0.693(0.425,1.129)
Not agree	201(51.7%)	188(48.3%)	1.00	1.00
<u>Not acceptable in our religion</u>				
Agree	87(32.3%)	182(67.7%)	0.493(0.36, 0.674) *	0.993(0.552,1.786)
Not agree	230(49.3%)	237(50.7%)	1.00	1.00

* Statistically significant at p_value <0.05

Acceptance of male circumcision

During this study uncircumcised respondents were asked about future willingness to circumcise after a written explanation about the benefit of male circumcision in reducing the chance of getting HIV/AIDS, one hundred seventy nine (42.2%) of uncircumcised respondents were willing to accept male circumcision.

Acceptance of male circumcision was higher among health science student respondents than education students, but there was not difference between agriculture and education students. 50.5% of health science students were willing to circumcise where as, only 36% of education student respondents were willing to circumcise. From agriculture stream 42.9% of the study participants were willing to circumcise. The level of acceptance was higher among study participants who had a knowledge on male circumcision than who had not (52.3% versus 38.7%).

Two hundred seventy five (65.2%) of uncircumcised respondents had information about the avaiiability of health facility which gives medical male circumcision service, one hundred ninty nine (72.3%) of them also knew the service is given without fee (Figure 5).

The level of acceptance of male circumcision were also higher among respondents who had a perception about the benefit of male circumcision in reducing chance of getting HIV/AIDS were higher than respondents who had not such belief. Fifty eight (57.7%) of respondents who believed that male circumcision reducing chance of getting HIV were willing to circumcise, where as, only 33.5% of respondents who did not agree with benefit of male circumcision in reducing chance of getting HIV/AIDS were willing to circumcise.

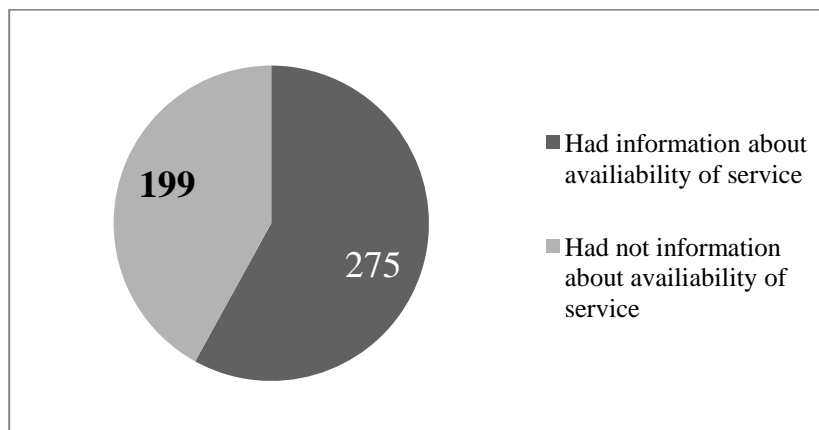


Figure 5 knowledge on avaiiability of circumcision service among uncircumcised male college students. Gambella Town March 2014

Factors associated with acceptance of male circumcision

Bivariate and multivariate analysis were employed to identify factors which affect acceptance of male circumcision. During bivariate analysis, type of stream, academic year, marital status, having a circumcised friend, and other behavioral factors were associated with acceptance of male circumcision. (Table 7)

After ascertaining the existence of association between the explanatory variables and the dependent variable, all independent variables which fulfills the criteria to multivariate model during bivariate analysis were fitted to multiple logistic regression model to see their independent effect on acceptance of male circumcision.

Variables like having a circumcised friend, perceived benefit of male circumcision for (reducing chance of getting STIs, penile hygiene and to be preferred by women), fear of pain and cultural acceptability were found potent predictors of acceptance of male circumcision in stepwise multiple logistic regression analysis.

Respondents who had a circumcised friend were 2.38 times more likely [AOR= 2.38; 95% CI (1.121, 5.054)] willing to accept circumcision than respondents who had not a circumcised friend. Respondents who believed that circumcision enhances penile hygiene were 2.897 times more likely [AOR= 2.897; 95% CI(1.177, 4.967)] willing to accept circumcision than respondents who had not such perception, and those respondents who believed that circumcision decreases the chance of getting STI were 2.418 times more likely [AOR = 2.418; 95% CI (1.177, 4.967)] to accept circumcision than respondents who did not agree with this idea.

Respondents who believed that women prefer circumcised males were 2.522 times more likely [AOR = 2.552; 95% CI (1.225, 5.191)] willing to circumcise than respondents who did't agree with a statement says women prefer circumcised men than uncircumcised men.

Fear of pain and cultural acceptability were major barriers of male circumcision acceptance. Study participants who report that circumcision procedure is painful were 0.387 times less likely [AOR= 0.387; 95% CI(0.188, 0.799)] willing to accept male circumcision, and those who believed that male circumcision is not acceptable in their culture were 0.355 times less likely [AOR= 0.355; 95% CI (0.177, 0.712)] willing to accept circumcision.(Table 7)

Table 7 Factors associated with acceptance of male circumcision among uncircumcised male college students. Using multivariate logistic regression model. Gambella Town, March 2014

Variables	Willingness to circumcise		OR (95% C.I)	
	Yes	No	Crude	Adjusted
Stream				
Education	49(36.0%)	87(64.0%)	1.00	1.00
Health science	49(50.5%)	48(49.5%)	1.812(1.067, 3.080) *	1.048(0.376, 2.392)
Agriculture	81(42.9%)	108(57.1%)	1.332(0.846, 2.095)	1.267(0.550, 2.92)
Academic year				
First year	52(32.1%)	110(67.9%)	1.00	1.00
Second year	71(45.8%)	84(54.2%)	1.788(1.132, 2.823) *	2.223(0.960,5.149)
Third year	56(53.3%)	49(46.7%)	2.418(1.458, 4.009) *	2.064(0.936,4.55)
Marital status				
Single	79(37.1%)	134(62.9%)	1.00	1.00
Married	98(48.0%)	106(52.0%)	1.568(1.061, 2.318) *	
Divorced	2(40.0%)	3(60.0%)	1.131(0.185, 6.914)	
Having circumcised friend				
Yes	117(47.6%)	129(52.4%)	1.668(1.120, 2.482) *	2.380(1.121, 5.054) *
No	62(35.2%)	114(64.8%)	1.00	1.00
Knowledge on MC				
Knowledgeable	92(52.3%)	84(47.7%)	1.736(1.064, 2.835) *	1.186(0.551, 2.552)
Less knowledgeable	41(38.7%)	65(61.3%)	1.00	1.00
Perceived risk of HIV/AIDS				
High	63(49.2%)	65(50.8%)	1.420(0.913, 2.209)	1.698(0.899, 3.207)
Low	86(40.6%)	126(59.4%)	1.00	1.00
Enhance penile hygiene				
Agree	140(53.0%)	124(47.0%)	3.445(2.230, 5.322) *	2.897 (1.308, 6.418) *
Not agree	39(24.7%)	119(75.3%)	1.00	1.00
Reduce chance of STI				
Agree	117(57.9%)	85(42.1%)	3.508(2.339, 5.261) *	2.418 (1.177, 4.967) *
Not agree	62(28.2%)	158(71.8%)	1.00	1.00
Reduced chance of HIV				
Agree	90(57.7%)	66(42.3%)	2.712(1.805, 4.075) *	
Not agree	89(33.5%)	177(66.5%)	1.00	1.00
Increases sexual pleasure				
Agree	74(49.3%)	76(50.7%)	1.549(1.035, 2.316) *	1.010(0.614, 1.662) *
Not agree	105(38.6%)	167(61.4%)	1.00	1.00
Women prefers circumcised male				
Agree	108(53.2%)	95(46.8%)	2.370(1.596, 3.518) *	2.522(1.225, 5.191) *
Not agree	71(32.4%)	148(67.6%)	1.00	1.00
Circumcision has pain				
Agree	92(38.2%)	149(61.8%)	0.667(0.451, 0.986) *	0.387(0.188, 0.799) *
Not agree	87(48.1%)	94(51.9%)	1.00	1.00
will lead to complication				
Agree	96(38.1%)	156(61.9%)	0.645(0.435, 0.956) *	0.695(0.337, 1.435)
Not agree	83(48.8%)	87(51.2%)	1.00	1.00
Culturally not acceptable				
Agree	80(34.2%)	154(65.8%)	0.467(0.315, 0.692) *	0.355 (0.177, 0.712) *
Not agree	99(52.7%)	89(47.3%)	1.00	1.00
Not acceptable in our religion				
Agree	68(37.4%)	114(62.6%)	0.693(0.468, 1.027)	0.657(0.34, 1.269)
Not agree	111(46.2%)	129(53.8%)	1.00	1.00

* Statistically significant at p<0.05

Chapter six: Discussion

In this study the prevalence and level of acceptance of male circumcision were identified. In addition to these the study tried to identify factors associated with male circumcision and willingness to circumcise.

Around eighty percents (79.5%) of the study participants having heard about male circumcision, and 67% of the respondents knew what male circumcision means. This finding is almost similar with study conducted in Rwanda, in which 72% of the study participants were correctly answered the definition of male circumcision (26).

The prevalence of male circumcision was 43.1%. This finding is higher compared with studies conducted in Taiwan (13.4%), and Kenya (12%) (16,18,). The difference in prevalence of male circumcision between this study and the above mentioned studies might be due to difference in socio cultural and duration of time. Uncircumcised males were asked about their future willingness to circumcise after a short written explanation about male circumcision benefit in reducing the chance of getting HIV/AIDS, thus from four hundred twenty two uncircumcised respondents, 42.4% were willing to circumcise. This finding is similar with study conducted in china which level of male circumcision acceptance was 44.6%. But low compared with studies conducted in Kenya (60%) and Jamaica (77%) and higher compared to study in Thailand, in which only 14.2% indicated that they would be willing to be circumcised (16,18,23). Such discrepancies between studies could be due to socio demographical, duration of time and sample size difference with in respective study area.

Health related benefit and penile hygiene were reported as a reason to undergo circumcision. This findings is similar with the study conducted in Uganda, Kampala (29), in this study the main motivators to get circumcised were, medical reasons, including prevention of HIV, prevention of other STIs and hygienic benefit. This is also consistent with findings reported in Tanzania (19), in which penile hygiene and protection from STIs were the main reasons for circumcision.

Cultural reason, fear of pain and fear of complication were mentioned as a reason to being uncircumcised by majority of respondents. These reasons were also mentioned as a barrier to undergo circumcision in different studies done in Thailand, Kenya and Rwanda (16,18,26).

In this study significant number of participants (12.8%) were believed that male circumcision protect from HIV entirely. Such misinformation also reported by other similar studies. For

example a study from south Africa reported that 7.6% of participants believed that circumcised men do not need to use condom during sex (30). Similarly a report from Uganda, 4.3 % of mens believed that circumcising an HIV negative man completely removes his chance of getting HIV (29). This could be due to ambitious promotion of male circumcision in reducing HIV and indicates that this feeling of security could transformed into dangerous practices. So there should be care during preparation of male circumcision promotion tools. Messages clearly explaining that male circumcision protects only partly, and that condom is still needs should be provided.

In this study religion showed significant association with male circumcision. Orthodox and Adventist followere were more likely to circumcised than Protestant followers. This could be related with universal acceptability of male circumcision in Orthodox Religion. But further study may require to investigate the difference between Adventist and Protestant religion. Knowledge on male circumcision showed association with male circumcision in China study(20). Similarly in this study, respondents who had a good knowledge on male circumcision were more likely to be circumcised than respondents who had not good knowledge on male circumcision. Individual perceived benefit of male circumcision for enhancing penile hygiene, for reducing chance of STIs and for its advantage in reducing chance of getting HIV were positively associated with male circumcision in findings revealed from Jamaica, Rwanda and Kenya(18,23,26). These variables also a major predictors of being circumcised in this research, respondents who believed that it is easier to circumcised men to keep penile hygiene were more likely to be circumcised, those respondents who believed that circumcision decreases chance of getting STIs were more likely to be circumcised. and study participants reported that it is easier to uncircumcised men to get HIV than circumcised men were more likely to be circumcised than respondents who did not agree with benefits of circumcision in reducing HIV/AIDS. This result indicates that people are likely to circumcise if they know the benefit of male circumcision and they view themselves standing to gain something by undergoing the procedure.

Perceived pain and complication which would result from male circumcision procedure were major barriers of being circumcised. Those who believed that male circumcision procedure is painful were less likely to be circumcised, and participants who reported that circumcision procedure would have complication were less likely to be circumcised. Consistent with study findings revealed from Jamaica and Tanzania perceived pain and complication were negatively

associated with male circumcision (19,23). Fear of pain and complication were significant barriers of male circumcision in most of researches on male circumcision, so there should be an action to reduce such misconceptions among traditionally uncircumcised society parallel with the service.

The last objective of this paper was to identify factors associated with male circumcision acceptance among uncircumcised respondents. Having a circumcised friend showed a significant association with acceptance of male circumcision. Respondents who had a circumcised friend were more likely willing to circumcise than respondents who had not a circumcised friend. This result is consistent with study in China which report having a circumcised friend showed positive association with willingness (20). Findings revealed in China, Jamaica and Rwanda, perceived benefit of male circumcision for penile hygiene had positive association with willingness (20,23,26). Similarly with these, those who agreed on benefits of male circumcision for; improvement penile hygiene and reduce the risk of STIs were more likely willing to accept circumcision. Similar finding also reported in Thailand and Rwanda (16,26). But in a study done in Kenya, perceived benefit for STIs didn't show association with willingness (18), this may be related with small sample size in Kenya's study. These finding implies that promoting benefits of male circumcision can play a great role to increase acceptance level of male circumcision.

How circumcision perceived to influence sexual pleasure for the man himself or for his partner is likely to influence decision making around male circumcision. This study revealed that respondents who believed that women prefer circumcised men to uncircumcised men were more than two times more likely willing to accept male circumcision. This finding is consistent with reports in Jamaica and Kenya (18,23).

Culture and pain were significant barriers for acceptance of male circumcision. Respondents who believed that male circumcision is unacceptable procedure in their culture were less likely willing to accept male circumcision. This result is similar with a review (17), in which culture reported as barrier in Botswana for willingness to circumcise. This indicates that interventions should consider the cultural perspective of male circumcision. Study participants who believed that male circumcision procedure is painful were less likely to accept male circumcision. Consistent with findings from Jamaica and Kenya, where fear of pain was negatively associated with willingness (18,23).

Strength and Limitations of the study

Strength of the study

- This is the first study tried to investigate on this area, even the service was begin three years ago.
- All the five indigenous groups were participated.

Limitation of the study

- The study was limited in colleges due to feasibility issue, better to study throught the region.
- Circumcision status was determined by self report, this may over/under estimate the prevalence.

Chapter seven: Conclusion and Recommendation

Conclusion

The prevalence of male circumcision was large compared with similar studies.

But, the level of acceptance of male circumcision was low compared with other similar reports.

Only half of participants who believed on the benefit of male circumcision in reducing chance of getting HIV/AIDS.

Large number of respondents have concerns on the procedure of male circumcision, they believed it would have pain and also lead to complication.

Religion, having a circumcised friend, agreement on benefit of male circumcision for reducing chance of getting HIV and STIs, fear of pain and fear of complication are identified as a factor, which affect circumcision status.

Having a circumcised friend, benefits of male circumcision for penile hygiene, STIs prevention, women preference, fear of pain and cultural acceptability are identified as a factor which affect acceptance of male circumcision among uncircumcised respondents.

Recommendation

Based on the findings the following suggestions and critical interventions are forwarded to increase uptake of male circumcision.

To MOH, RHB, RHAPCO and NGOs

- Information, education and communication programs should be established on the benefit of male circumcision in reducing chance of getting HIV and STIs.
- Messages clearly explaining that male circumcision protects only partly, and that condom is still needs should be provided.
- Information on availability of free voluntary medical male circumcision service in government health facilities should be disseminated.
- There should be intervention to eliminate misconception about male circumcision procedure.
- Training and advocacy program about male circumcision should be organized for Cultural and religious leaders.

To both Gambella T/E/H/S and Agricultural colleges

- Mainstreaming male circumcision in colleges anti HIV clubs.
- Peer education and experience sharing programs should be organized between circumcised and uncircumcised students. This will have a great role to eliminate the myths of male circumcision.

To researchers

- We recommend further community based research on this area through out the region.

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Annexes

Annex 1 English questionnaire

Jimma University
College of Public Health and Medical Science
Department Of Epidemiology

Student self reporting questionnaire on “ Prevalence and Acceptance of Medical male circumcision as HIV/AIDS prevention among male college students in Gambella town, Gambella region, Ethiopia”

Dear student

This study will propose the acceptance of male circumcision as HIV/AIDS prevention in male college students of Gambella region and you are chosen randomly using lottery method to participate in this study.

The purpose of this study is to assess acceptance of male circumcision that will be used as an input to increase the uptake of the service. There is no way in which participating in the study can cause harm to you. The study will involve various private life questions in order to attain the goal. I am asking you for your help. Here is a survey for you which take a few minutes to complete. There is no need to put your name on the survey and no individual response will be reported. It is your full right to refuse to answer any or all of the questions. If you don't want to participate you can return the format unfilled. You have two days to fill and return the questionnaire. If you want to contact the principal investigator, the name of the investigator is “**Yalew Gebeyehu**” and you can call on phone number **0913 696042** any time you want.

Do you mind participating in this study please ?

Yes, please go to the next page. Put your signature-----

No, (Thank you very much!) Please return the questionnaire.

Thank you very much.

Section A; Socio demographic Informations

101	How old are you	-----	
102	What is your study program ?	<ol style="list-style-type: none"> 1. Education 2. Health science 3. Agriculture 	
103	Departement	-----	
104	Year of student	<ol style="list-style-type: none"> 1.1st year 2.2nd year 3.3rd year 	
105	Religion	<ol style="list-style-type: none"> 1.Protestant 2.Catholic 3.Adeventist 4.Orthodox 5.Muslim 6.Other 	
106	Place of birth	<ol style="list-style-type: none"> 1.urban 2.rular 	
107	Ethnicity	<ol style="list-style-type: none"> 1.Nuer 2.Agnua 3.Majang 4.Upo 5.Komo 	
108	Marital status	<ol style="list-style-type: none"> 1. Married 2. Single 3. Divorse 	
109	If you are married, how many wife du you have ?	<ol style="list-style-type: none"> 1. One 2. More than one 	

110	If the father is alive, educational status	<ol style="list-style-type: none"> 1. Unable to read and write 2. read and write 3. grade 1-4 4. grade 5-8 5. grade 9-12 6. grade above 12 	
111	Father's occupation	<ol style="list-style-type: none"> 1. Unemployed 2. government employee 3. privately employed 4. pastoral 5. farmer 6. others specify----- -- 	
112	If the mother is alive, educational status	<ol style="list-style-type: none"> 1. Unable to read and write 2. read and write 3. grade 1-4 4. grade 5-8 5. grade 9-12 6. grade above 12 	
113	Mother's occupation	<ol style="list-style-type: none"> 1. housewife 2. government employee 3. privately employed 4. others specify----- -- 	
114	What is the monthly income of the family?	_____birr	

Section B. HIV and STIs related questions

No	Questionnaire	Coding category	skip
201	Have you ever heard about sexually transmitted disease diseases?	1. Yes 2. No	→203
202	If yes, which of sexually transmitted disease have you ever heard About ?	1.Gonorrhea 2.Syphilis 3.Cancroids 4.Lymphogranuloma venerium 5. HIV/AIDS 6. Others (specify) -----	
203	Have you ever had sign and symptoms of sexual transmitted disease ? Like genital ulcer, genital discharge and burning/pain on urinating	1. Yes 2. No	
204	Have you ever heard about HIV/AIDS	1. Yes 2. No	
205	Can the risk of HIV transmission be reduced by having sex with only one uninfected partner who has no other partners ?	1. Yes 2. No 3. I dont know	
206	Can a person reduce the risk of getting HIV by using a condom every time they have sex?	1. Yes 2. No 3. I dont know	
207	Can a healthy-looking person have HIV?	1. Yes 2. No 3. I dont know	
208	Can a person get HIV from mosquito bites?	1. Yes 2. No 3. I dont know	
209	Can a person get HIV by sharing food with someone who is infected?	1. Yes 2. No 3. I dont know	
210	Can a pregnant woman infected with HIV /AIDS transmit the Virus to her unborn child?	1. Yes 2. No 3. I dont know	

211	Can HIV /AIDS be transmitted by sharing unsterile sharp instrument?	1. Yes 2. No 3. I dont know	
212	Can a person get the HIV by doing unsafe sexual intercourse?	1. Yes 2. No 3. I dont know	
213	How great is your chance of contracting HIV/AIDS	1. high 2. low 3. no chance at all 4. I don't know	
214	What makes you at higher risk of contracting HIV/AIDS ?	1. I have multiple partners 2. I never use condoms 3.I don't use condoms consistently 4. Other specify	
215	How makes you at lower risk of contracting HIV/AIDS ?	1. I have never had sex 2. I am faithful to my partner 3. I use condoms consistently 4.Other specify_____	

Section C. Male circumcision related questions

No	Questions	Coding catagory	skip
301	Have you heard about Male circumcison ?	1. Yes 2. No	→ 303
302	If yes, Select what you think male circumcison is.	1. Removal of the entire foreskin (the skin that can be rolled forward or back over the head of the penis). 2. Removal of the foreskin (the skin that can be rolled forward or back over the head of the penis), but not necessarily the entire foreskin. 3. Removal of the penis. 4. Don't know. 5. Other (Specify) -----	

male circumcision is the surgical removal of the entire foreskin, which is the skin that can be rolled forward or back over the head of the penis. If less than the entire foreskin is removed, this is not full circumcision.

303	Are you circumcised?	<ol style="list-style-type: none"> 1. Yes 2. No _____ 3. Don't know 	If no skip → To 306
304	If yes, where are you circumcised ?	<ol style="list-style-type: none"> 1. Traditional circumciser 2. At a health facility 3. Don't know 4. Other specify _____ 	
305	What was your reason to circumcised ?	<ol style="list-style-type: none"> 1. Religion reason 2. Cultural reason 3. Penile hygiene 4. Health benefit 5. Sexual benefit 6. Other specify _____ 	
306	If 'No' Why aren't you circumcised?	<ol style="list-style-type: none"> 1. Religion 2. Culture 3. Personal Choice 4. Complications 5. I have no money to pay 6. Other (specify) _____ 	
307	Have you had a circumcised friend ?	<ol style="list-style-type: none"> 1. Yes 2. No 	
308	Do you know health facility which gives male circumcision in your area ?	<ol style="list-style-type: none"> 1. Yes 2. No _____ 3. I do not know _____ 	→ → 310
309	If 'yes' how much is the price to get the service ?	<ol style="list-style-type: none"> 1. It is free 2. Very Cheap 3. Cheap 4. I do not know 5. Expensive 6. Very expensive 	
310	Male circumcision helps to improve penile hygiene ?	<ol style="list-style-type: none"> 1. Agree 2. Disagree 3. Undecided 	

311	Male circumcision reduces risk of sexually transmitted diseases ?	1. Agree 2. Disagree 3. Undecided	
312	Male circumcision reduces risk of HIV infection ?	1. Agree 2. Disagree 3. Undecided	
313	Male circumcision prevents HIV infection entirely ?	1. Agree 2. Disagree 3. Undecided	
314	Male circumcision increases sexual pleasure ?	1. Agree 2. Disagree 3. Undecided	
315	Women prefer men who are circumcised ?	1. Agree 2. Disagree 3. Undecided	
316	Circumcision procedure can be painful?	1. Agree 2. Disagree 3. Undecided	
317	After the procedure of circumcision there may have health complication?	1. Agree 2. Disagree 3. Undecided	
318	Circumcision practice is not acceptable in your culture ?	1. Agree 2. Disagree 3. Undecided	
329	Circumcision practice is not acceptable in your religion ?	1. Agree 2. Disagree 3. Undecided	
<i>For uncircumcised study participants only</i>			
International health organizations have concluded that male circumcision is an important and effective means of reducing the risk of HIV infection. The national government is considering recommending that males be offered circumcision to reduce the chances of men becoming infected with HIV and other STIs.			
320	Now free of charge voluntary medical male circumcision is available in government health facilities, are you willing to circumcise?	1. Yes 2. No 3. not decided	

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ወድ ተማሪዎች

የዚህ ጥናት አላማ የወንድ ልጅ ግርዛት እና ባለወጣ ተቀባይነት ዙሪያ ሲሆን ስለዚህ አንተ ለዚህ ጥናት በዕድል ተመርጠሃል።

የዚህ ጥናት አላማ የወንድ ልጅ ግርዛት ምን ያህል ተቀባይነት እንዳለው ለመዳሰስ ሲሆን የዚህ ጥናት ውጤትም የግርዛት አገልግሎትን በፍጥነት ለማስፋፋት ግባአት ይሆናል ። በዚህ ጥናት በመሳተፍ ምንም ዓይነት ጉዳት እንደማያስከትል ለማሳወቅ እንወዳለን። ጥናቱ የግል አመለካከትን የሚዳሰሱ ጥያቄዎችን ይዟል። የጥናቱን አላማ ለማሳካት የእንተን እርዳታ እንጠይቃለን። ከዚህ ቀጥሎ በግል የሚሞሉ ጥያቄዎች አሉ። በመጠይቁ ላይ ስም መጻፍ አያስፈልግም። በጥናቱ ውጤት ላይ የግል ሁኔታን የሚገልፁ መረጃዎች (የግለሰብ መልሶች) ለብቻቸው አይቀርቡም። ሁሉንም ወይም አንዳንዱን ጥያቄዎችን ላለመመለስ ትችላለህ በጥናቱ ለመሳተፍ የማትፈልግ ከሆነ የመጠየቅ ቅፁን አለመሙላት ትችላለህ ነገር ግን ሌሎች ተማሪዎች ሞልተው እስኪጨርሱ በመቀመጫ ላይ እንድትጠብቅ እናሳስባለን። ጥቂት ደቂቃዎችን ወስደህ ጥያቄዎቹን እንድትመልስ በትህትና እንጠይቃለን።

፪ታዲያስ መጠይቆችን ለመሙላት ፍቃደኛ ነዎት ?

አዎ፤ ወደ ሚቀጥሉት ገጾች ይለፉ -----ፊርማ

አይደለሁም (አመሰግናልሁ፤) እባክዎን መጠይቁን ይመልሱ

የክፍል አንድ: አጠቅላላ መረጃ

ተ.ቁ	መጠይቅ		የሚታለፍ
101	ዕድሜ ?	-----	
102	የትምህርት ፕሮግራም ?	1. ኢ.ዲ.ኤ.ሸን 2. ጤና ሳይንስ 3. ግብርና	
103	ትምህርት ክፍል ?	-----	
104	ስንተኛ አመት ነህ ?	1.1 ^ኛ ዓመት 2.2 ^ኛ ዓመት 3.3 ^ኛ ዓመት	
105	ሃይማኖት ?	1.ፕሮቴስታንት 2. ካቶሊክ 3. ኦርቶዶክስ 4.አርቶዶክስ 5. ሙስሊም 6. ሌሎችም	
106	የትውልድ ቦታ ?	1. ከ ተ ማ 2. ገ ጠ ር	
107	የየት ብሔረሰብ አባል ነህ ?	1. ኑዌር 2. አኝዋ 3. ማጃንግ 4. አፖ 5. ኮሞ	
108	የጋብቻ ሁኔታ	1. ያገባ 2. ያላገባ 3. የፈታ	
109	ያገባ ከሆነ ስንት ሚስት አለ ?	1. አንድ 2. ከአንድ በላይ	
110	የአባትህ የትምህርት ደረጃ ?	1.ማንበብና መጻፍ የማይችል 2.ማንበብና መጻፍ የሚችል 3.1 ^ኛ -4 ^ኛ ክፍል 4.5 ^ኛ -8 ^ኛ ክፍል 5. 9 ^ኛ -12 ^ኛ ክፍል 6. ከ12 ^ኛ ክፍል በላይ	
111	የአባት የስራ ሁኔታ ?	1. ስራ አጥ 2. የመንግስት ሠራተኛ	

		3. የግል ተቀጣሪ 4. አረብኛ አደር 5. ግብርና 6. ሌላ ይጠቀስ	
112	የእናት የትምህርት ደረጃ ?	1. ማንበብና መጻፍ የማይችል 2. ማንበብና መጻፍ የሚችል 3. ከ1 ^ኛ -4 ^ኛ ክፍል 4. ከ5 ^ኛ -8 ^ኛ ክፍል 5. ከ9 ^ኛ -12 ^ኛ ክፍል 6. ከ12 ^ኛ ክፍል በላይ	
113	የእናት የስራ ሁኔታ ?	1. የቤት አመቤት 2. የመንግስት ሠራተኛ 3. የግል ተቀጣሪ 4. ሌላ ካለ ይጠቀስ.....	
114	የቤተሰብ ገቢ በወር በአማካኝ ምን ያህል ይሆናል?	-----ብር	

ክፍል ሁለት፤ የኤች አይ ቪ እና የአባላዘር በሽታዎችን የሚመለከት መጠይቅ

ተ.ቁ	መጠይቅ	መልስ	
201	ስለ አባላዘር በሽታ ሰምተህ ታወቃለህ ?	1. አዎ 2. አላዎቅም →	203
202	አዎ ካልክ ስለየትኛው የአባላዘር በሽታ ነው የሰማህዉ ?	1. ጨብጥ 2. ቁጥኝ 3. ከርከር 4. ባምቡሌ 5. ኤድስ 6. ሌላ (ይገለፅ) -----	
203	የአባላዘር በሽታ ምልክቶች ማለትም (በብልት አካባቢ ቁስለት ወይም ፈሳሽ) ታይተውብህ ያውቃል ?	1. አወቃለሁ 2. አያዎቅም	
204	ስለ ኤች አይ ቪ ኤድስ ሰምተህ ታወቃለህ ?	1. አዎ 2. አላዎቅም	
205	በ ኤች አይ ቪ በሽታ ካልተያዘኝ ፍቅረኛ ጋር ብቻ የግብረ ስጋ ግንኙነት በመፈፀም ኤች አይ ቪን መከላከል ይቻላል ?	1. አዎ 2. አይቻልም 3. አላወቅም	
206	ሁልጊዜ ኮንዶም መጠቀም በኤች አይ ቪ የመያዝ እድልን መቀነስ ይቻላል ?	1. አዎ 2. አይቻልም 3. አላወቅም	
207	ጤነኛ የሚመስል ሰው ኤች አይ ቪ ሊኖርብት ይችላል ?	1. አዎ 2. አይቻልም 3. አላወቅም	
208	የወባ ትግኝ ኤች አይ ቪን ልታስተላልፍ ትችላለች ?	1. አዎ 2. አይቻልም	

		3. አላዉቅም	
209	በኤች አይ ቪ ከተያዘ ሰዉ ጋር መመገብ ለበሽታዉ ሊያጋልጥ ይችላል ?	1. አዎ 2. አይቻልም 3. አላዉቅም	
210	ኤች አይ ቪ ቫይረስ ያለባት አርጉዝ እናት ወደ ፅንሱ ልታስተላልፍ ትችላለች ?	1. አዎ 2. አይቻልም 3. አላዉቅም	
211	ሠዎች ጥንቃቄ የጎደለዉ ወሲብ ቢፈፀሙ ኤች አይ ቪ ቫይረስ ሊይዛቸዉ ይችላል ?	1. አዎ 2. አይቻልም 3. አላዉቅም	
212	ንፅህናቸዉ ያልተጠበቀ ሥሊታም መሳሪያዎችን በጋራ በመጠቀም ኤች አይ ቪ ሊተላለፍ ይችላል ?	1. አዎ 2. አይቻልም 3. አላዉቅም	
213	በኤች አይ ቪ ኤድስ የመያዝ ዕድልህ ምን ያህል ነው ?	1. ከፍተኛ 2. ዝቅተኛ → 3. በፍፁም አይዘኝም → 4. አላውቅም →	214 214 301
214	በኤች አይ ቪ ኤድስ ለመያዝ ያለህን እድል ከፍተኛ የሚያደርገው ምንድን ነው ?	1. ብዙ የፍቅር ጓደኞች ስላሉኝ 2. ኮንዶም ተጠቅሜ ስለማላውቅ (ስለማልጠቀም) 3. ኮንዶም ሁል ጊዜ ስለማልጠቀም 4. ሌሎች ካሉ ይጥቀሱ-----	
215	በኤች አይ ቪ ኤድስ ለመያዝ ያለህን እድል ዝቅተኛ የሚያደርገው ምንድን ነው ?	1. የግብረ ስጋ ግንኙነት ፈፀሜ ስለማላውቅ 2. ለፍቅር ጓደኛዬ ታማኝ ስለሆንኩ 3. ኮንዶም ሁል ጊዜ ስለማልጠቀም 4. ሌሎች ካሉ ይጥቀሱ	

ክፍል ሶስት፤ ግርዛትን የተመለከቱ ጥያቄዎች

ቁጥር	መጠይቅ	መልስ	
301	ስለ ወንድ ግርዛት ስምተህ ታዉቃለህ ?	1. አወ 2. አላዉቅም →	303
302	አዎ ካልክ ከሚከተሉት ዉስጥ የትኛዉ ነዉ የወንድ ልጅ ግርዛትን የሚገልፀዉ ?	1. በብልት አናት ላይ ወደፊትና ወደኋላ የሚንሸራተተዉን የቆዳ ክፍል ማስወገድ. 2. በብልት አናት ላይ ወደፊትና ወደኋላ ከሚንሸራተተዉን የቆዳ ክፍል ከፊሉን ማስወገድ. 3. ብልትን ማስዎገድ 4. አላዉቅም 5. ሌላ ካል ይገለፅ -----	

<p>የወንድ ልጅ ግርዛት ማልት በብልት እናት ላይ ወደፊትና ወደኋላ የሚንሸራተተውን የቆዳ ክፍል በሙሉ በቀይ ጥገና ማስወገድ ሲሆን ይህ የቆዳ ክፍል በሙሉ ካልተወገደ ግን ተገርዟል ማለት አይቻልም፡፡</p>			
303	ተገርዘህል ?	<ol style="list-style-type: none"> 1. አዎ 2. አልተገርዘኩም 	→306
304	አዎ ካልክ የት ነው የተገርዘከው ?	<ol style="list-style-type: none"> 1. ከልምድ ገራገሮች 2. ከጤና ተቋም 3. አላውቅም 4. ሌላ ካለ ይገለጽ----- 	
305	ለመገረዝህ ምክኒያትህ ምን ነበር ?	<ol style="list-style-type: none"> 1. ሀይማኖት 2. ባህል 3. ለብልት ንጽህና ስለሚረዳ 4. ለጤና ጠቃሚ ስለሆነ 5. ለግብረሰጋ ግንኙነት ጠቃሚ ስለሆነ 6. ሌላ ካለ ይገለጽ----- 	
306	በምን ምክኒያት ነው ያልተገርዘከው ?	<ol style="list-style-type: none"> 1. ሀይማኖት 2. ባህል 3. ህመም ስላለው 4. ብልት ላይ ቁስለት ስለሚያስከትል 5. በገንዘብ እጥረት 6. ሌላ ካለ ይገለጽ <p>-----</p>	
307	የተገረዘ ጓደኛ አለህ ?	<ol style="list-style-type: none"> 1. አለኝ 2. የለኝም 	
308	በአካባቢህ የወንድ ልጅ ግርዛት አገልግሎት የሚሰጥ የጤና ድርጅት አለ ?	<ol style="list-style-type: none"> 1. አወ 2. የለም 	→ 310
309	አዎ ካልክ የአገልግሎቱ ዋጋ እንዴት ነው ?	<ol style="list-style-type: none"> 1. በነጻ ነው 2. ርካሽ ነው 3. ወድ ነው 4. አላውቅም 	
310	የወንድ ልጅ ግርዛት ለብልት ንፅህና ይጠቅማል፡፡	<ol style="list-style-type: none"> 1. እስማማለሁ 2. አልስማማም 3. መወሰን አልችልም 	
311	የወንድ ልጅ ግርዛት በአባላዘር በሽታ የመያዝ እድልን ይቀንሳል፡፡	<ol style="list-style-type: none"> 1. እስማማለሁ 2. አልስማማም 3. መወሰን አልችልም 	

312	የወንድ ልጅ ግርዛት በኤች አይ ቪ የመያዝ እድልን ይቀንሳል።	1. እስማማለሁ 2. አልስማማም 3. መወሰን አልችልም	
313	የወንድ ልጅ ግርዛት ከኤች አይ ቪ ሙሉ በሙሉ ይከላከላል።	1. እስማማለሁ 2. አልስማማም 3. መወሰን አልችልም	
314	የወንድ ልጅ ግርዛት የወሲብ እርካታን ይጨምራል።	1. እስማማለሁ 2. አልስማማም 3. መወሰን አልችልም	
315	ሴቶች የተገረዘን ወንድ ይመርጣሉ።	1. እስማማለሁ 2. አልስማማም 3. መወሰን አልችልም	
316	የወንድ ልጅ ግርዛት ህመም አለው።	1. እስማማለሁ 2. አልስማማም 3. መወሰን አልችልም	
317	ግርዛት በብልት ጤና ላይ ችግር ሊፈጥር ይችላል።	1. እስማማለሁ 2. አልስማማም 3. መወሰን አልችልም	
318	የወንድ ልጅ ግርዛት በባህላቸው ተቀባይነት የለውም ?	1. እስማማለሁ 2. አልስማማም 3. መወሰን አልችልም	
319	የወንድ ልጅ ግርዛት በሀይማኖታቸው ተቀባይነት የለውም ?	1. እስማማለሁ 2. አልስማማም 3. መወሰን አልችልም	

ላልተገረዘ የጥናቱ ተሳታፊዎች ብቻ

የወንድ ልጅ ግርዛት ኤች አይ ቪ ኤድስ እንደሚቀንስ የአለም የጤና ድርጅት አረጋግጧል። በዚህም መንግስት በጋምቤላ ክልል ያለውን የኤች አይ ቪ ስርጭት ለመቀነስ የወንዶች ግርዛትን እንደ አንድ በሽታውን የመከላከያ መንገድ በክልሉ ጥቅም ላይ እያዋለ ይገኛል።

320	አሁን በመንግስት የጤና ተቋማት ያለምንም ክፍያ የወንዶች ግርዛት አገልግሎት እየተሰጠ ነው ። ስለዚህ አንተ ለመገረዝ ፍቃደኛ ነህ ?	1. አወ 2. አይደለሁም 3. አላወሰንኩም	
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