

Factors for preference for Non-medical Male Circumcision for Children in Chamwino District: A Case of Makang'wa Ward

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ABSTRACT

This study was conducted in Makang'wa Ward in Chamwino District, with aim of determining factors influencing non-medical male circumcision. Data collection methods were interview, focus group discussion, documentary review and observation. Analysis was done by using both descriptive and inferential statistics. Results indicate that preference for non-medical male circumcision for children was mainly caused by perception on self-identity and perceived low quality of medical based circumcision services. The study recommends that technical assistance and material support like preparing training courses relating to male circumcision, organizing safe male circumcision services should be provided to traditional male circumcisers (TC) through government, NGOs and CBOs. Awareness on the important of medical based male circumcision services should be promoted by private sectors and responsible ministry.

Keywords: Male circumcision, traditional circumcisers, medical circumcision

1.0 INTRODUCTION

Male circumcision is one of the oldest surgical procedures known, traditionally undertaken as a mark of cultural identity or religious importance in many societies. Typically, non-medical male circumcision practiced among ancient peoples, including Egyptians and Jews around 2300BC (WHO, 2007). In the Jewish religion, male infants are traditionally circumcised on their eighth day of life (Genesis 17:10). Almost all newborn Jewish males in Israel (100%) are circumcised (Shenker and Gross, 1993), 99% and 98% of Jewish men in the

United Kingdom, Northern Ireland and United States of America are circumcised respectively (Farley, 2006 and Dave, 2003). The experience of pain is an important aspect of traditional male circumcision carrying significant symbolic meaning. Circumcision demonstrates the ability to withstand the pain but test of bravery and courage which are important attributes of male adulthood in those communities (Wambura *et al.*, 2009).

Global estimates in 2006 suggest that about 30% of males representing a total of approximately 665 million men are circumcised. Circumcision prevalence in several countries is around 15% (Botswana, Namibia, Swaziland, Zambia, Zimbabwe); but substantially higher in others (Malawi 21%, South Africa 35%, Lesotho 48%, Mozambique 60%, and Angola and Madagascar more than 80%). Prevalence in central and eastern Africa varies from 15% in Burundi and Rwanda, to over 70% in Ethiopia, Kenya and the United Republic of Tanzania (DHS, 2007). In 2007, the World Health Organization (WHO) recommended urgent roll out of Voluntary Medical Male Circumcision (VMMC) to 13 priority countries in Sub-Saharan Africa, all countries with low male circumcision prevalence and generalized epidemics with high HIV prevalence.

Medical circumcision is recommended as non- medical circumcision haven been associated several health problems such as delayed healing as it done in unhygienic condition and poor treatment of the wound. medical male circumcisions is available and practiced among health institutions, yet non-medical male circumcision is still prevalent at high rate in some areas of Dodoma region like Chamwino district and the reason for high prevalent are not well understood despite advantages medical circumcision. Therefore, this study was carried out to reveal this information.

2.0 METHODOLOGY

The study was conducted at Makang'wa ward comprised of three villages namely; Mlowa Barabarani, Makang'wa and Mloda found in Chamwino district in Dodoma region. The selection of the study area is due to the fact that Dodoma region is ranked among the regions in Tanzania practicing highly tradition male circumcision (URT, 2009).

A study design was non-experimental whereby cross-sectional study design was employed to collect qualitative and quantitative information at one point of time. During this study both primary and secondary data were collected. The sources of primary data were respondents while the sources for secondary data were dispensary health reports, village reports and different books related to the study.

Primary data were collected by using interview and the tool used was structured questionnaire to collect data from 100 household's head, observation method using checklist/ camera as a tool was used to collect data from initiation ceremony which took place during the study. Furthermore, one Focus Group Discussions (FGDs) was also held in each village to gain more insight on the matter.

Data were analyzed for both descriptive and inferential statistics. In Descriptive statistics, frequencies and percentage were used. Inferential statistical analyses was used to test if there was significant association between choice of circumcision method (non-medical vs medical) (a dependent variable) and socio-cultural; socio-economic and demographic; as well as services deliveries factors (Independent variables). During inferential statistical analyses, bivariate analyses using Chi-square test were carried out to screen significant independent variables, which were then subjected to Multivariate analysis using Binary Multiple Logistic Regression using a statistical model below to control for confounding effects;

$$\ln\left(\frac{\Pr(Y = 1)}{1 - \Pr(Y = 1)}\right) = b_1X_1 + b_2X_2 + \dots + b_nX_n + e$$

Where, by Y= 1 being method of circumcision preferred/used being non-medical (Traditional method), α and b are estimated regression coefficients and X_1 - X_n are various explanatory variables. Odds Ratio (OR) for determining the effect of various categories of explanatory variables on likelihood having a child who was traditionally circumcised were estimated by computing $\text{Exp}(\beta)$ for each variable (Lwelamira *et al.*, 2012 cited in Hosmer and Lemeshow, 2000).

On the other hand, qualitative data collected from FGD were analysed through content analysis.

3.0 RESULTS AND DISCUSSION

3.1 Socio-cultural Factors Influencing Choice of Circumcision Method based on descriptive statistics and qualitative data

3.1.1 Passage to manhood (initiation school)

Analysis of collected data reveals that 78% of the respondents preferred non-medical male circumcision for their children. Findings in Table 1 indicate that more than half (53.6%) of total respondents agreed that passage to manhood was a factor for non-medical male circumcision. It is believed that, non-medical male circumcision transmits values to young boys through teachings they provided;

“The ritual of circumcision is a ritual of instruction that teaches young boys what it is to be Mgogo and what values and customs they need to adhere to in their lives” (FGD participant from Mlowa Barabarani).

Young boys must be instructed by older boys how to behave themselves socially, and how to guide and protect themselves and their families from all harm and how to take care of the old. They are taught many proverbs, stories, song and dances although most of teachings were outdated as they do not solve current cross cutting issues like Poverty, gender, environment problems and HIV/AIDS. Songs teach young boys that they shall respect their parents, brothers, sisters, relatives and other people in their community once they left from *Ikumbi*. On the other hand, 46.4% of respondents disagree that non-medical male circumcision is no longer passage to manhood and considered it as outdated;

“Children are circumcised at their young age that is why they fail to understand what they taught and it becomes difficult for us to teach them what is required because some teachings use abuse language” (FGD participant from Mlowa Barabarani village).

The findings are in line with that of Mboera *et al.* (2009) who observed that 58.4% respondents in Bahi district preferred non-medical male circumcision because they use it as an initiation to their young children.



Plate 1: Traditionally circumcised boys

3.1.2 Test of bravery and endurance

Findings in Table 1 show that most respondents (58.8%) thought that non-medical male circumcision is a test of bravery and endurance of their young boys. During Focus group discussions, one male elder had the following to say;

“Long time ago tradition circumcisers used no medicine during circumcision and sometimes the circumcised boys were taken out of the Ikumbi in mid night in heavy cold without any clothes and stay for more than three hours to test our bravery and endurance but nowadays this is no longer existing that is why young boys become careless” (FGD participant from Makang’wa village).

Furthermore, Wambura *et al.* (2011) argued that traditional male circumcision is an important stage of initiation for boys aged between 10 and 18 years. The practice is done as a rite of passage from infancy into adulthood. Hence results of this study are in agreement with finding reported in other part of Tanzania.

3.1.3 Self-identity and socially accepted (Desirability)

Findings in Table 1 indicate that 75.3% of respondents support that self-identity is among the reason for preference for non-medical male circumcision. This means that non-medical male circumcision has unique style which medical circumcisers do not offer.

“I will never take my children to public health for circumcision because they real destroy our identity, only tradition circumcisers can offer our symbolic to our children” (FGD participant from Mloda village).

This means that tradition circumcisers had got special style for circumcising which is socially and cultural accepted, they left a nodule like in a bottom of male penis known as *chidogorogo*. It is basically a small part of skin left. Similarly, majority of respondents (63.9%) agree that social desirability to be another reason for preference for non-medical male circumcision because it is socially accepted as tradition circumcisers are indigenous and well respected as the results they are still the leading male circumcision service providers.

“To circumcise my children at tradition circumcisers is my obligation because we had been practicing it for a long period of time as we inherited from our ancestors” (FGD participant from Mlowa Barabarani village).

Atchley (1971) in his theory argued that people use strategies tied to their past experience of themselves, therefore this is in line with our findings because people still practicing non-medical male circumcision due to their past experience.

3.1.4 Customs and tradition

Results from Table 1 indicate that overwhelming majority of respondents (97%) said that customs and tradition to be among important factor for preference to non-medical male circumcision. During focus group discussions one of the participant said:

“Some people want to harm your children through superstition because during circumcision children become exposed to many enemies, but only tradition circumcisers can protect children from such enemies whereas medical circumcisers know nothing, as a results we prefers tradition circumcision, (FGD participant from Mloda village).

Table 1: Socio-cultural factors for non-medical male circumcision (n = 97)

Perceived factors	Frequency	Percent
Socio-cultural factors as sources of preference to non-medical male circumcision		
Yes	94	97.0
No	3	3.0
Passage to manhood as sources of preference to non-medical male circumcision		
Yes	52	53.6
No	45	46.4
Test of bravery and endurance as sources of preference to non-medical male circumcision		
Yes	57	58.8
No	40	41.2
Self identity as sources of preference to non-medical male circumcision		
Yes	73	75.3
No	24	24.7
Social acceptance as sources of preference to non-medical male circumcision		
Yes	62	63.9
No	35	36.1
Sticking to customs and tradition for successful life (Beliefs) as sources of preference to non-medical male circumcision		
Yes	70	72.2
No	27	27.8

3.2 Bivariate Analyses for Socio-cultural Factors Influencing Choice of Circumcision Method

Findings in Table 2 indicate that non-medical male circumcision was significantly associated with Passage to manhood ($\chi^2 = 5.513$, $P < 0.05$), Self identity ($\chi^2 = 7.228$, $P < 0.01$), Social desirability ($\chi^2 = 6.308$, $P < 0.05$) and Tradition beliefs ($\chi^2 = 7.838$, $P < 0.05$). Effects of other variables on preference for non-medical male circumcision considered in this analysis were not significant ($P > 0.05$). These include Test of Bravery and endurance.

Table 2: Socio-cultural factors influencing choice of circumcision method

Variable	Medical (n=15)	Non-medical (n=69)	χ^2 -value	Significance level
Passage to manhood				
Yes	11(26.8%)	30(73.2%)	5.513	0.019*
No	3(7.3%)	38(92.7%)		
Test of bravery and endurance				
Yes	8(16.7%)	40(83.3%)	0.014	0.0907
No	6(17.6%)	28(82.4%)		
NS				
Self identity				
Yes	9(12.7%)	62(87.3%)	7.228	0.007**
No	5(45.5%)	6(54.5%)		
Social desirability				
Yes	13(25.0%)	39(75.0%)	6.308	0.012*
No	1(4.0%)	29(96.7%)		
Tradition beliefs				
Yes	6(40.0%)	9(60.0%)	7.838	0.005**
No	7(10.6%)	69(89.4%)		

NS, *, **, *** = Non-significant, Significant at (P<0.05) Significant at (P<0.01) and Significant at (P<0.001).

3.3 Bivariate Analysis for Socio-economic and Demographic Factors Influencing Choice of Circumcision Method

Results in Table 3 indicate that there was significant association between several factors considered and preference for non-medical circumcision. Preference for non-medical male circumcision was significantly associated with income ($\chi^2 = 7.987$, P<0.01), education level ($\chi^2 = 36.98$, P < 0.001), Occupation ($\chi^2 = 29.26$, P < 0.001) and Sex ($\chi^2 = 4.418$, P < 0.05). The effects of age was not significant (P > 0.05).

Table 3: Socio-economic and demographic factors influencing non-medical male circumcision

Variable	Medical (n=15)	Non-medical (n=69)	χ^2 - value	Significance level
Income				
>3500000	9(36.0%)	16(64.0%)	7.987	0.005**
≤3500000	6(10.2%)	53(89.8%)		
Education level				
No formal education	0(0.0%)	19(100.0%)	36.98	0.000***
Primary education	8(13.8%)	50(86.2%)		
Secondary education and above	6(86%)	1(14%)		
Occupation				
Peasant	6(10.2%)	53(89.8%)	29.26	0.000***
Civil servant	7(87.8%)	1(12.5%)		
Business	2(11.8%)	15(88.8%)		

NS, **, *** = Non-significant, Significant at (P<0.01) and Significant at (P<0.001)

3.4 Deliveries Factors Influencing Choice of Circumcision Method Based on Descriptive Statistics and Qualitative Information

3.4.1 Distance

Findings from Table 4 indicate that majority of total respondents (95.0%) agreed that distance was not a limiting factor for them to access medical male circumcision services, hence it seems health facilities were allocated near homes but people do not take their children to health facilities for circumcision.

3.4.2 Competence of medical circumcisers

The findings in Table 4 indicate that most respondents (76.0%) argued that medical circumcisers were not competent in provision of male circumcision services, but this does not give us real scenario of the situation because only few people were using/preferred medical male circumcision, therefore people do not know well the competence of medical circumcisers.

3.4.3 Quality of medical male circumcision services

Findings from Table 4 indicate that majority of respondents (75.0%) thought that medical male circumcision had low quality. This means that through observing

the way medical circumcisers perform circumcision process, the style and the effectiveness of the medical health worker to perform circumcision process, these lead to many people to take their children to traditionally circumcisers.

3.4.4 Costs for medical based male circumcision services

Results in Table 4 indicate around half (53.0%) of total respondents agreed that medical male circumcision had high cost, This may be due to the fact there is no proper arrangement on cost for circumcision services per client in all health facilities as the prices varies from one health facilities to other, as each medical doctor had to decide his own price. There, this can be an obstacle for medical male circumcision.

Table 4: Health service delivery factors influencing choice of circumcision method (n = 100)

Variables	Frequency	Percent
Perception on the distance from home to the health facilities (n=100)		
Far	5	5.0
Near	95	95.0
Perception on competence of medical personnel to carry male circumcision(n=100)		
High	24	24.0
Low	76	76.0
Perception on quality of medical circumcision services at health facilities (n=100)		
High	25	25.0
Low	75	75.0
Perception on costs for carrying male Circumcision in health facilities (n=100)		
High	53	53.0
Low	47	47.0

3.5 Bivariate Analyses for Health Service Delivery Factors Influencing Choice of Circumcision Method

Results in Table 5 indicate significant association between one factor among all factors considered in this study and preference for non- medical male circumcision for children. The preference was significantly associated with perceived quality of medical male circumcision services in public health facilities ($\chi^2 = 37.208$, $P < 0.001$). The effects of other variables on Non-medical male circumcision considered in this analysis were not significant ($P > 0.05$). These

include distance from residential areas to public health facilities, competence of medical health workers and cost of medical male circumcision.

Table 5: Health service delivery factors influencing choice of circumcision method

Variable	Medical (n=15)	Non-medical (n=69)	χ^2 - value	Significance level
Distance from home to health facilities				
Far	5(0.0%)	5(100.0%)	1.156	0.282 ^{NS}
Near	15(19.0%)	64(81.0%)		
Competence of Medical workers				
High	5(23.8%)	16(76.2%)	0.676	0.41 ^{NS}
Low	10(15.9%)	53(84.1%)		
Qualities of medical circumcision services				
High	12(66.7%)	6(33.3%)	37.208	0.000***
Low	3(4.5%)	63(95.3%)		
Costs of medical circumcision				
High	9(20.0%)	36(80.0%)	0.303	0.582 ^{NS}
Low	6(15.4%)	33(84.6%)		

NS, **, *** = Non-significant, Significant at (P<0.01) and Significant at (P<0.001).

3.6 Multivariate Analysis for Factors Influencing Choice of Circumcision Method

Preliminary bivariate analyses using chi- square test indicated that preference for non-medical male circumcision was significantly influenced by passage to manhood, self identity, social desirability, tradition beliefs and customs, income, level of education, occupation and quality of medical based circumcision services. These variables were subjected to binary multiple logistic regression.. Results from the Table 6 indicate while the effect of passage to manhood, social desirability, Tradition and customs, education level, income, and respondent's occupation ceased to be significant, the effects of other variables included in the model continued to be significant, indicating they are robust predictors for preference to non-medical male circumcision for children.

Table 6: Multivariate analyses for factors influencing choice of circumcision method

Predictors	B	S.E.	Wald	Exp.(B) OR	Sign
Primary education					
Otherwise (Ref)					
If have primary education	-18.528	7466	0.000	0.00	0.998 ^{NS}
Secondary education and above					
Otherwise (Ref)					
If have sec education and above	-36.425	14419	0.000	0.00	0.998 ^{NS}
Income	0.000	0.00	2.577	1.00	0.208 ^{NS}
Occupation					
Others (Ref)					
Peasant	0.341	2.013	0.029	1.41	0.866 ^{NS}
Perception of the quality of medical based male circumcision					
High (Ref)					
Low	5.639	2.370	5.662	281.16	0.017*
Do you think TC is a passage to manhood					
No (Ref)					
Yes	1.550	2.210	0.492	4.71	0.483 ^{NS}
Do you think TC helps in self-identity					
No (Ref)					
Yes	6.437	3.119	4.259	624.43	0.039*
Do you think sticking to tradition and customs is important for successful life					
No (Ref)					
Yes	3.606	3.369	1.146	36.83	0.284 ^{NS}
Do you think TC is more socially accepted than medical based circumcision					
No (Ref)					
Yes	-2.055	2.204	0.869	0.13	0.351 ^{NS}

Nagelkerke R square=0.849

Moreover, findings in Table 7 indicate that heads of households with perception of low quality of medical circumcisions services were associated increased likelihood for preference to non-medical circumcision for children (P<0.05).

“I will never take my children to public health facilities for circumcision because they real destroy our identity, only tradition circumcisers can offer our symbolic to our children”.
(FGD participant from Mloda village).

Such argument concurs with Anderson and Newman (1973) that general beliefs or attitude of the people might predict services use. People beliefs towards low quality of medical based male circumcision influence them to take their children to traditional circumcisers for circumcision services. Results from Table 6 also

indicate that heads of households with perception in non-medical circumcision method as good for self identity were more likely to prefer the method for their children ($P < 0.05$).

“Tradition circumcisers have got their special style of circumcising; they left small part of skin hanging at the bottom of penis known as “chidogorogo”, but here in public health facilities we remove all skin to prevent fungal infection and easy healing of the wound” (FGD participant from Mloda village).

Andrea *et al.* (2010) in that argued that traditional providers will continue to be an important source of circumcision for many males in Eastern and Southern Africa and will not easily be replaced by medical based circumcision method for reasons that are both cultural and linked to health service capacity

4.0 CONCLUSION AND RECOMMENDATIONS

4.1 Conclusion

Sensitivity on non-medical male circumcision as a self identity among people was the only socio-cultural factor found to be important factor for preference for non-medical male circumcision in the study area. This variable was significant in both binary analyses and multivariate logistic regression analysis. Socio-economic and demographic factors had no significant influence to preference for non-medical male circumcision in the study area based on multivariate logistic regression. On the other hand, based on both bivariate and multivariate analyses, perceived low quality of medical male circumcision was significant service delivery factor for non-preference of the service.

4.2 Recommendations

Based on findings of this study, it is recommended that;

- Non-Governmental Organizations (NGOs) and Community Based Organizations (CBOs) should provide technical assistance and material support to traditional male circumcisers like preparing training courses relating to male circumcision, organizing safe male circumcision services in the study area. This is for the reason that traditional male circumcisers are still the key stakeholders in provision of circumcision services as they are socially and culturally respected and recognizable by all people.

- Private sectors like financial institutions should support campaigns for raising awareness on the important of medical based male circumcision services. This should be done through traditional folk media such as songs, dances, drama and theatre as they use visual and oral expressions commonly understood by local people.
- The government through Ministry of Health, Community Development, Gender, Seniors and Children, should formulate policy relating provision of medical male circumcision services where male circumcision will be given equal weights like other health related diseases like malaria. Therefore this will increase effectiveness and efficient of carrying male circumcision in public health facilities whereby in long run non-medical male circumcision services will be reduced in the study area.

REFERENCES

- Andrea. W., Thomas, K. and Bruce, D. (2010). *Traditional male circumcision in eastern and southern Africa: a systematic review of prevalence and complications*, Institute for Social Medicine, Epidemiology and Health Economics, Charite University Medical Centre, Berlin, Germany.
- Atchley, R. C. (1999). *Continuity and adaptation in aging: Creating positive experiences*, Johns Hopkins University Press. Baltimore, MD:
- British Broadcasting Cooperation (BBC), (2013). *Why a white South African risked traditional circumcision*, 16 July 2013 last updated at 23:28 GMT
- Chappell, N.L. and Blandford, A.A. (1987). Use of Health Services by Older Adults, *Journal of Gerontology: Europe and North America*.
- Dave, S.S. (2003). *Male circumcision in Britain: findings from a national probability sample survey*. Sex Transmission Infection, Britain.
- Demographic Health Survey (2007). Global Trend on Male Circumcision statistics.
- Doyle, D. (2005). Ritual male circumcision: a brief history. *Journal of the Royal College of Physicians*, 35:279-285.
- Farley, T. (2006). *Technical guidance on improving safety in male circumcision in resource- limited settings*. Toronto, Canada

- Hosmer, D.W. and Lemeshow, S. (2000). *Applied Logistic Regression* Second Edition, John Wiley and Sons Inc., Hoboken, New Jersey, USA, pp: 375
- Lwelamira, J., Mnyamagola, G. and Msaki, M.M. (2012). *Knowledge, Attitude and Practice Towards Modern Contraceptive Among Married Women of Reproductive Age in Mpwapwa District*, Department of Population Studies, Institute of Rural Development Planning, Dodoma-Tanzania.
- Mboera, L.E.G., Massaga, J.J., Senkoro, K.P., Kilima, S.P., Mayala, B.K., Msovela, J. and Shayo, E.H. (2009). *Challenges and Opportunities for the involvement of Traditional Practitioners in scaling up of Safe Male Circumcision in the Context of HIV Prevention in Tanzania*. National Institute for Medical Research, Dar es Salaam, Tanzania
- Schenker, I. and Gross, E. (1993). *Male circumcision and HIV/AIDS*, University School of Medicine Institute for Global Health, Nashville, TN37201, USA
- URT. (2010). United Republic of Tanzania. *Chamwino District Socio-Economic Profile*, The Institute of Rural Development Planning (IRDP) and Chamwino District council, Dodoma Tanzania.
- Wambura, M., Mwanga,J., Mosha,J., Mshana,G., Mosha, F. and Chungalucha, J. (2009). *Situation Analysis for Male Circumcision*, In Tanzania Final Report National Institute for Medical Research Mwanza, Tanzania and Ministry of Health and Social Welfare, Dar es Salaam, Tanzania
- Wambura, M., Mwanga,J.R., Mosha, J.F., Mshana, G., Mosha, F. and Chungalucha, J. (2011). *Acceptability of medical male circumcision in the traditionally circumcising communities in Northern Tanzania*, National Institute for Medical Research, Mwanza, Tanzania
- WHO (2006). Meeting Report: Strategies and Approaches for MC Programming, Geneva, 5-6 December 2006.
- WHO and UNAIDS (2007). *Clearinghouse on male Circumcision for HIV prevention*
- William, C. (2009). *Collins English Dictionary*, 10th, William Collins sons and Co. Ltd Publishers, London, England.
- WHO and UNAIDS (2007). *Male circumcision global trends and determinants of prevalence, safety and acceptability*, Geneva Switzerland.