

Article

The ethical concerns of using medical male circumcision in HIV prevention in sub-Saharan Africa

Calvin Gwandure, DPhil, MSc Educational Psychology, BSc Hons Psychology, Certificate in Education, Educational Psychologist, HPCSA

School of Human and Community Development, University of the Witwatersrand, Johannesburg

Corresponding author: C Gwandure (Calvin.Gwandure@wits.ac.za)

This position paper seeks to explore the ethical concerns surrounding the use of medical male circumcision as an effective method of preventing HIV infection in sub-Saharan Africa. The study explores research that looked at the effectiveness of medical male circumcision in clinical trials. While clinical trials reveal that medical male circumcision showed statistically significant results in HIV prevention, there is still a paucity of studies that take into consideration the ethical challenges posed by medical male circumcision in sub-Saharan Africa. This paper argues that rolling out medical male circumcision to the larger community without adequately addressing the ethical concerns could weaken programme initiation, implementation and evaluation in sub-Saharan Africa.

The use of medical male circumcision to prevent HIV infection in sub-Saharan Africa can result in ethical dilemmas for health educators and uncertainty among participants. Ethical dilemmas are experienced when health educators fail to take a firm stance on health interventions as a result of conflicting ideas about the efficacy of an intervention.¹ Research indicates that health educator ambivalence towards medical interventions could weaken programme effectiveness.² This paper argues that rolling out medical male circumcision without adequately addressing the ethical concerns could weaken programme initiation, implementation and evaluation in sub-Saharan Africa. A survey of the literature on medical male circumcision clinical trials shows that medical male circumcision raises ethical questions among implementers and participants. The ethical concerns highlighted in this paper relate to: competition with traditional values, perceived replacement of traditional authority, measurement of medical male circumcision effectiveness in HIV prevention, double protection, playing God, double agency, domination of women by men, poverty and HIV risk and social marketing of medical male circumcision in HIV prevention.

Circumcision is not new to Africa.³ Several ethnic groups in Africa practise male circumcision.³ The practice has been in place since time immemorial in some of the countries, e.g. Kenya, Malawi, South Africa, Nigeria, Zambia and Zimbabwe. In fact, in every country in Africa, there is an ethnic group that practises circumcision for cultural or religious reasons.³ Circumcision is associated with ethnic marks, virility, masculinity and agricultural produce abundance, and it is a rite of passage.⁴ Among Africans, there are men with *shondo*, a Shona term for a penis that does not have a foreskin through natural developmental processes at puberty. The foreskin falls back at puberty. On the other hand, there are men with *shondo* through traditional male circumcision. At the moment there is no adequate research evidence as yet in sub-Saharan Africa that indicates that men with *shondo* are less susceptible to HIV infection. What is now being supported by the World Health Organization (WHO) is that societies that practise traditional male circumcision show lower HIV prevalence than non-circumcising

societies.³ Although circumcision has long been perceived to promote health among African traditions, traditionalists and cultural activists in sub-Saharan Africa have not yet claimed that they practise circumcision in order to reduce HIV infection.⁴ It is done to promote a cultural sense of manhood and sexual enhancement. This paper does not compare traditional male circumcision with medical male circumcision as a means to prevent HIV infection. It is the position of this paper that communities in sub-Saharan Africa know of men with *shondo*, both 'naturally occurring' and the 'socially acquired condition' through traditional circumcision, who are living with HIV and among those dying of AIDS. In fact, communities practising traditional male circumcision were until recently discouraged from practising circumcision and warned that their traditional practises fuelled the spread of HIV. The irony now in traditional male circumcision research is that circumcision is reported to have contributed significantly towards the reduction of HIV infection among ethnic groups that practise traditional male circumcision in sub-Saharan Africa.³ Evidence that societies which practise circumcision in sub-Saharan Africa show less prevalence of HIV and AIDS than non-circumcising societies is now used as the basis for launching medical male circumcision on a larger scale. In this context, medical male circumcision is considered to be scientifically more hygienic in preventing HIV infection in sub-Saharan Africa.³ Although the findings are scientifically valid, they tend to contradict what health educators used to teach in sub-Saharan Africa, that traditional male circumcision exposes people to HIV infection. The evidence might give hope to traditionally circumcised men that they are less vulnerable to HIV infection than uncircumcised men, but a cloud of uncertainty will still hover over communities about the dramatic change in information about HIV risk. Health educators have to revisit the health messages they communicated about circumcision and HIV risk when they introduce medical male circumcision in HIV prevention. At the moment, there is no research evidence or public health promotion material in South Africa that indicates that provinces that practise traditional male circumcision have lower rates of HIV infection and AIDS than those that do not practise traditional male circumcision. Researchers in South Africa, one of the countries participating in

medical male circumcision clinical trials in sub-Saharan Africa, have not yet published evidence similar to what was found in Kenya, that non-circumcising societies are more vulnerable to HIV infection than societies that practise traditional circumcision.¹⁰ There are reports of teenagers who die from botched circumcision every year in the Eastern Cape Province of South Africa, but there is no corresponding evidence showing lower HIV prevalence and AIDS cases in that province.⁴ In this case, health educators in sub-Saharan Africa could experience ethical dilemmas in believing the WHO's perspective that traditionally circumcising communities are relatively safer from HIV infection than non-circumcising communities when HIV and AIDS statistics in sub-Saharan Africa are generally high.⁵ National HIV prevalence, incidence and behaviour surveys in South Africa show differences in HIV infection rates according to province, race, gender and income as measured in terms of poverty indicators, and nothing is reported about the circumcision status of participants.⁶ Some researchers take the position that adult male circumcision, be it traditional or medical, is not effective in reducing sexually transmitted infections.⁷ Other researchers regard medical male circumcision as an unnecessary distraction that diverts attention and resources away from research that focuses on finding a cure for HIV.⁸

The WHO argues that medical male circumcision is most effective in regions with high HIV prevalence and low levels of male circumcision.³ Medical male circumcision as espoused by leading researchers in clinical trials is presented as an operation that is markedly different from traditional male circumcision.³ Africa has been identified as a region befitting the WHO's criterion for rolling out medical male circumcision because of high cases of HIV and AIDS in traditionally non-circumcising societies.³ Even though the WHO's approach to HIV prevention is backed by scientific evidence, it could create a false sense of security among traditional leaders that at least traditionally circumcising societies are less vulnerable to HIV infection than non-circumcising societies.³ The WHO and other promoters of medical male circumcision need to step up the campaign and show evidence that medical male circumcision and traditional circumcision both reduce HIV risk.³ Even though the WHO indicates that traditional male circumcision should be discouraged because of associated health risks, the idea of ranking or comparing modern methods with traditional methods does not usually yield the desired effect because of religious, cultural and political reactivism.⁹ There are researchers who have taken the firm position that medical male circumcision rolled out on a large scale will increase HIV infection in sub-Saharan Africa in the long term although there is evidence of HIV prevention in clinical trials with relatively small samples.⁸ The back and forth arguments about the effectiveness or efficacy of medical male circumcision in preventing HIV infection could render programme initiation, implementation and evaluation ineffective.⁸ This could create scepticism among project implementers and participants.⁸

Traditional practices and authority

Medical male circumcision in sub-Saharan Africa can be perceived as a replacement for traditional male circumcision under the pretext of HIV prevention.⁹ The medical doctor is supplanting the traditional circumciser in the eyes of the community.⁹ This could be worsened by the perception of some political figures and religious leaders in sub-Saharan Africa that medical professionals are generally sceptical of traditional practices, authority and values.¹⁰ Traditionalists argue that the medical model to HIV prevention

has long condemned traditional male circumcision and has been urging African governments to ban the traditional practice because it is regarded as retrogressive and hindering the achievement of health objectives.¹⁰ It is argued by supporters of the medical model that traditional male circumcision causes HIV infection because the traditional circumcisers use one knife, razor blade, or other sharp objects to circumcise many initiates in one place.³ This practice exposes participants to HIV infection.³ Cases of excessive bleeding are reported in traditional male circumcision.³ The methods are unhygienic and the traditional circumcisers are usually illiterate and untrained.³ Traditional male circumcision is sometimes described as shocking, alarming and unacceptable.¹¹ It is reported that traditional male circumcision causes permanent scars, erectile dysfunction, mutilation of the tip of the penis, and damage to the penis gland.¹¹ Despite evidence against it, it is argued in this paper that traditional male circumcision will continue to be practised in sub-Saharan Africa because traditionalists and cultural activists might perceive medical male circumcision as a threat to 'initiatives of collaboration' or the coexistence of traditional practices with modern medical practices in the promotion of public health.⁹ The perceived replacement of traditional authority and values could result in community resistance to the use of medical male circumcision in HIV prevention.⁹ Community defensiveness can be ethically justifiable in the context of freedom to practise religious beliefs, right to seeking alternative medical care or the right to a second opinion in personal health matters.¹² Traditional circumcision is an expression of human rights to exercise freedom of conscience, practise religious rites and show human difference and preference in health promotion. These are ethical values observed by health educators in respect of people's rights and dignity.¹³

Traditional male circumcision is a social institution that lies at the centre of African traditional beliefs and way of life.¹⁰ Circumcision, as a traditional rite, includes traditional figures that are revered and held in high esteem by society and initiates for the traditional role they fulfil.¹⁰ This comes with ascribed authority, teachings, and performance of sexual rites that are sanctioned by society.¹⁰ The ethical concern of discrediting traditional male circumcision in rolling out medical male circumcision in sub-Saharan Africa is that the intervention assumes a paternalistic model.¹⁰ The mode of operation is based on the 'parent-child model' and not the 'adult-adult model' which facilitates effective communication between the change agent and participants.¹⁴ It is argued in this paper that organisations rolling out medical male circumcision take a top-down approach towards communities and regions in which they operate. They are protected by scientific and medical methodologies that tend to weaken or take away the traditional respect, autonomy, accountability or human dignity that was previously bestowed upon the traditional circumciser.⁹ Traditional methods are non-falsifiable, hence the traditional circumciser cannot provide scientific evidence to defend or justify their relevance in the promotion of sexual health and HIV prevention. In a traditional sense, medicalisation of male circumcision in HIV prevention tends to alienate people in sub-Saharan Africa from their traditional practices.¹⁵ It should be emphasised that even though patients have a right to practise their religion, the risk of HIV infection should be reduced by practising safer sex. In the context of HIV risk, both traditional male circumcision and medical male circumcision do not adequately protect individuals against HIV infection.⁸ It is a professional and scientific responsibility of health educators in sub-Saharan Africa to inform participants that both methods cannot be effective without the use of condoms.¹³

Traditional male circumcision is currently presented in a negative light in sub-Saharan Africa and yet it was part and parcel of a man's dignity, integrity, attractiveness among women, and authority in circumcising societies.¹¹ For example, some traditionalists in South Africa would expect medical male circumcision to be performed by a medical doctor who underwent the same traditional circumcision rite in South Africa.⁹ Similarly, some women would not like to have sex with men who were not circumcised according to their tradition because such men could be foreigners, social outcasts or fugitives who have no regard for cultural values.¹⁶ In the same vein, there are men who would prefer to marry women from their own ethnic group who underwent traditional rites of passage. People with such views regard assimilation as anathema in the preservation of ethnic identity.¹⁶ Medical male circumcision might confuse women who believe in traditional or religious values of masculinity through circumcision and equally so women who can physically discern the difference between a penis with and without a foreskin.¹⁷ In this regard, some women from non-circumcising societies might prefer to have sex with uncircumcised men; hence medical male circumcision could violate their sexual and conjugal rights.¹⁷ Men from non-circumcising societies who are persuaded to undergo medical male circumcision by promoters of medical male circumcision might feel adulterated or anatomically incomplete when the HIV scourge is over.¹⁷ In terms of partner choice, some women might be interested in distinguishing between 'doctor-circumcised men' and 'traditionally circumcised men'.¹⁷ It can be argued from a traditional context that such circumcised men could live with a permanent stigma among men and women of their ethnic group because medical male circumcision is not reversible. Reconstructive surgery can be expensive for most of the participants in sub-Saharan Africa.

Circumcision and its associated implications can be regarded as a cross-over and an abandonment of ethnic identity among non-circumcising societies.¹⁷ It is the position of this paper that the recruitment of non-circumcising societies to undergo medical male circumcision may have short-term benefits that might not be comparable to the risk of living as a social outcast among one's own people.¹⁷ In theory, researchers in sub-Saharan Africa tend to downplay the role of tribes, ethnic groups, religions, folktales, myths, taboos, rituals and general beliefs that can interfere with initiation, implementation and evaluation of community projects on the ground.¹⁰ It is argued that HIV infection can better be prevented through a change of attitude and behaviour than an 'operation'.

Measurement of effectiveness

Research in clinical trials indicates that medical male circumcision reduces chances of being infected with HIV by between 50% and 60%.¹⁸ Medical male circumcision has demonstrated that men have an approximately 60% less chance of becoming infected with HIV through unprotected vaginal sex.¹⁹ However, this paper regards the remaining 40% as a high risk in terms of patient or participant protection from HIV infection. Infection with HIV is a matter of life or death that calls for maximum protection of participants by avoiding harmful acts by all means possible.¹³ The findings reported in clinical trials were based on properly controlled and monitored procedures that might not be adhered to rigidly when large-scale population-based medical male circumcision programmes are scaled up in sub-Saharan Africa. It is well known that some hospitals and clinics in sub-Saharan Africa have obsolete equipment and working

environments that are not conducive to performing infection-free medical male circumcision.¹¹ It is contended in this paper that a reduction of the risk of HIV infection is not enough to prevent HIV infection in participants. Health educators have to tell participants that they will be either infected or not infected in each sexual encounter even if they have been circumcised. Non-infection in one sexual encounter is no guarantee that the next would be free of infection. In this regard, the ethical concern relates to the amount or percentage of risk. Even though the percentage of HIV infection risk is low, the chance of infection is either one or zero. Quantification in percentages does not count much in protecting the individual from HIV infection; it is only a statistical probability. There is no percentage of HIV infection that can be regarded as safer or any exposure to HIV infection risk that can be considered to be safer in HIV prevention.¹³ In statistical terms, the argument is valid but to translate that into HIV prevention, counselling and behaviour change programmes for the public might be problematic. By encouraging participants or patients to undergo medical male circumcision, the health educator could experience the ethical dilemma of exposing clients to psychological or medical harm while at the same time trying to protect the participant or patient from HIV infection.¹³ It could be difficult for the health educator to prove that medical male circumcision does not expose participants to anxiety-arousing situations and that the health educator will not be blamed in case of participant seroconversion after undergoing medical male circumcision.

Double protection

Double protection against HIV infection in new HIV prevention technologies has not been very effective in preventing HIV infection among participants in sub-Saharan Africa.¹⁸ Clinical trials have shown that combined protection methods in HIV prevention have not consistently yielded results that health educators can be enthusiastic about because some interventions do not pass the third phase of the clinical trials.¹⁸ Medical male circumcision as a 'new HIV prevention technology' is made effective by the use of condoms in order to increase the chances of protecting patients or participants from HIV infection.¹⁸ The male condom on its own has a high HIV prevention rate that ranges from 70% to 100%.²⁰ In this regard, the health educator's concern is about the interaction of the two interventions. It is difficult to explain to participants what contributes better to HIV prevention – medical male circumcision or the condom when the two prevention methods are used together. Participants in sub-Saharan Africa would like to know from health educators if the introduction of medical male circumcision is an admission that condoms have failed to prevent HIV infection or that they are unreliable. There was an outcry in South Africa when millions of defective condoms were distributed to poor communities and to date no one has succeeded in getting compensation for medical injury relating to HIV infection after using defective condoms.²¹ Non-disclosure, dishonest communication, or withholding information about HIV-infection risk and compensation for people who get infected in medical male circumcision programmes raises ethical concerns in sub-Saharan Africa. Governments and organisations that plan and implement medical male circumcision programmes without putting in place compensation mechanisms for participants who get infected with HIV after undergoing medical male circumcision behave in a manner that is tantamount to experimentation with human life.²² This paper argues that governments in sub-Saharan

Africa should ask promoters of medical male circumcision and manufacturers of condoms to release a joint public statement about medical injury compensation implications, the complementary or primary role of condoms in medical male circumcision and why a combination of circumcision and condoms is now a better method of preventing HIV infection than relying on condoms or medical male circumcision only.

Playing God

'Playing God' is a medical ethics concept that refers to taking an action that resembles God saving people's lives. For example, the concept looks at bioethical issues such as 'mercy killings' or euthanasia and situations in which the physician and patient agree to withdraw life-sustaining medical equipment or treatment and let the patient die.²³ The concept posits that it is unethical to manipulate human genes, be involved in experimentation that disturbs the natural structure of humanity, modify humanity for whatever purpose and meddle in the design of nature.²⁴ Medical male circumcision involves operating on a patient to remove the foreskin or prepuce. The penis is disfigured in the sense that the procedure changes its anatomy and normal functioning. In some situations, the penis is mutilated or modified in such a manner that causes discomfort, stigma, or difficulties in an individual's sex life.²⁵ The operation alters the design of a man's sexual organ in a bid to save him from HIV infection. Like medical male circumcision, traditional male circumcision plays God by altering the anatomy of the penis in a bid to enhance sexual pleasure. The ethical concern regarding medical male circumcision is that the operation alters the configuration or anatomy of the penis as a way of protecting the individual from HIV infection.²⁴ Medical doctors and other health practitioners could face the ethical dilemma of violating the ethical concept of playing God when they modify humanity in order to protect people from the ever-changing nature of a myriad of diseases and viruses that affect people on a daily basis.²⁴ Altering body parts, genes, and physical appearance will not guarantee the continued existence of humanity in the face of adversity.²⁴ It is the position of this paper that alterations of human anatomy could make humanity more vulnerable to new diseases. Medical research in HIV prevention should focus more on modelling the configuration of the disease than the reconfiguration of humanity.

Double agency

Implementers of medical male circumcision can experience 'double agency' in rolling out medical male circumcision.²⁶ There is conflict of interest between serving the consumer, patient or participant and financial gain. They can be tempted to work as 'hired guns' who testify to whoever pays them.¹ In medical male circumcision programmes, medical doctors and health educators working for non-governmental organisations could be caught between reporting adverse events following medical male circumcision and promoting the project for financial gain.²⁷ Medical scientists are employed as specialist consultants and health educators as promoters of medical male circumcision for which they receive a salary. Whistle-blowing by implementers of medical male circumcision against organisations that fund medical male circumcision research could result in research contracts between the international sponsors and governments in sub-Saharan African countries being terminated and

employees retrenched.²⁸ Medical scientists and other health professionals with a background in medical ethics and health law are inclined to report ethical violations but some government officials and politicians who brought the donor funds into the country might not easily be persuaded to abandon the project altogether.²⁹

Gender issues and therapeutic misconception

The promotion of medical male circumcision in sub-Saharan Africa could worsen the unequal power relations between men and women in relation to negotiation for safer sex.³⁰ Young men from traditionally circumcising societies in sub-Saharan Africa were taught in circumcision schools cultural values relating to marriage as an institution that is central to societal functioning, protection of women and children and the upholding of women's rights and role in society.³¹ In contrast, medical male circumcision in sub-Saharan Africa does not provide cultural education but HIV prevention counselling before and after circumcision. It is argued in this paper that, as a result of the publicity of medical male circumcision in HIV prevention through the media, men from non-circumcising societies could seek medical male circumcision and be tempted to ignore the use of condoms through therapeutic misconception.³² Therapeutic misconception happens when the positive effect of medical male circumcision advertisements and publicity results in participants overestimating the benefits of medical male circumcision and underestimating HIV infection risk.³² Research indicates low condom use among men and women in sub-Saharan Africa. In South Africa, a negative attitude towards condoms and low condom use are attributed to various reasons such as: cheap and free condoms are made for Africans, condoms have poison in the lubricant, and that manufacturers of condoms can use biological weapons and poison like what happened during the wars of liberation in Africa.³³ There are misconceptions about HIV from one country to another in sub-Saharan Africa such as having sex or forced sex with a virgin will cure HIV infection.³⁴ The argument of this paper is that circumcised men are more likely to show low and inconsistent condom use after undergoing medical male circumcision, and medical male circumcision might be relied upon as protective enough to prevent HIV infection. Men could develop a false sense of security in terms of protection from HIV infection and they could dominate and abuse women in the negotiation for safer sex. It should be raised as an ethical concern that medical male circumcision protects the man and not the woman from HIV infection.¹⁸ Some of the circumcised men could become sexually reckless and use circumcision as a courtship quality or carrot to attract more women. Women could prefer to have sex with circumcised men and this could result in unprotected sex.³⁴ It should be noted that some men and women in sub-Saharan Africa have a negative attitude towards the female condom and wet sex. Vaginal douching using chemicals and traditional herbs to make sure that there is a lot of friction during sexual intercourse is a common practice in sub-Saharan Africa.³⁶ This practice, called dry sex, in sub-Saharan Africa, renders condoms ineffective and even the medically circumcised man will have bruises that predispose him to HIV infection. The position of this paper is that if the attitude towards condoms is generally negative among men and women, medical male circumcision is less likely to make men in sub-Saharan Africa use condoms correctly and consistently.

Poverty and HIV

Poverty is controversially associated with HIV infection in sub-Saharan Africa.³⁷ It is argued that resource-poor communities tend to show higher prevalence of AIDS-related deaths than middle-class and wealthy communities.³⁷ Resource-poor communities in sub-Saharan Africa have limited access to health facilities such as modern hospitals, clinics, antiretroviral drugs (ARVs) and condoms, and they mainly suffer from preventable diseases such as HIV, tuberculosis and malaria.³⁸ In resource-poor communities, condoms are regarded as expensive and communities generally rely on donated condoms.³⁹ It can be posited that people who regard condoms as expensive are more likely to have sex without condoms. Research in South Africa indicates that partners who establish stable relationships tend to have inconsistent condom use, trusting each other in serial monogamy.³⁹ If medical male circumcision is rolled out to the general public free of charge, it is more likely that some of the circumcised men might not buy condoms when those provided by government are not available at primary healthcare centres. Previously disadvantaged communities might find it pointless to travel long distances to rural healthcare centres or hospitals in urban areas to have an operation that would still require them to use condoms as they used to do before. There is an ethical concern that among low-income groups with low literacy levels and people without access to health communication through the media, there could be a misconception that medical male circumcision is meant to be an alternative to condoms. It is the position of this paper that women who financially depend on men might not have the power to ask men to use condoms after medical male circumcision.⁴⁰

Social marketing

Organisations that promote medical male circumcision use social marketing techniques to attract HIV-negative males to undergo circumcision in order to reduce chances of HIV infection.⁴¹ In sub-Saharan Africa, the strategy involves the use of high-profile politicians of major political parties including presidents and ministers to attract people to medical male circumcision.⁴² Politicians of major political parties, especially the ruling party, have a large following. Before the results of medical male circumcision clinical trials are fully reported in medical journals, politicians can appear on national television and the print media urging people to save their lives by getting circumcised.⁴² This approach raises ethical issues relating to collective consent or group consent versus individual informed consent in HIV prevention programmes. The leader as a role model will publicly consent to being circumcised and he will promise to mobilise resources and people to support the project. Followers are more likely to do what their leader advises them to do. It is the argument of this paper that social marketing in medical male circumcision can be manipulative and deceptive because political figures are not medically qualified to speak about the efficacy of a medical procedure.⁴³ If the recruitment drive in medical male circumcision features prominent people such as business executives, media personalities, top government officials and celebrities, the public is more likely to participate without necessarily first verifying the health benefits and risks.

Implications of the study

Although medical male circumcision has been proven to reduce HIV infection in sub-Saharan Africa, it should be noted that organisations promoting such interventions tend to report less on the ethical implications of their findings and activities. The position of this paper is that principal investigators in sub-Saharan Africa tend to report less on ethical issues, medical complications and cultural underpinnings that could affect programme initiation, implementation and evaluation. At the moment, there is too much media publicity about the efficacy of medical male circumcision in HIV prevention but very little is reported about its effectiveness globally, apart from the studies that were conducted mainly in Kenya, South Africa and Uganda.

Conclusion

This paper does not dispute the scientific evidence reported in clinical trials that medical male circumcision reduces HIV infection, but argues that medical male circumcision raises ethical concerns that need to be addressed during programme initiation, implementation and evaluation in sub-Saharan Africa. It is recommended that medical male circumcision should be presented by health educators as a method that is introduced in sub-Saharan Africa to complement community initiatives in HIV prevention and not imposed as a replacement for traditional male circumcision. It is recommended that promoters of medical male circumcision should provide updated information about the successes and failures of the programme in preventing HIV infection among participants in sub-Saharan Africa. In this context, promoters of medical male circumcision should provide the public with information about patient injury compensation in monetary terms and the procedures that a participant in medical male circumcision HIV prevention clinical trials follows to settle their claim. It is also recommended that the public in sub-Saharan Africa should receive adequate education about HIV infection risk, bioethics, health law and human rights before they undergo medical male circumcision.

References

1. Pope KS, Venter VA. Ethical dilemmas encountered by members of the American Psychological Association: A national survey. *American Psychologist* 1992;47 (3):397-411.
2. Harding R, Higginson I. Working with ambivalence: informal caregivers of patients at the end of life. *Support Care Cancer* 2001;9:642-645.
3. World Health Organization. Traditional male circumcision among young people: A public health perspective in the context of HIV prevention. Geneva: World Health Organization, 2009.
4. Kepe T. 'Secrets' that kill: crisis, custodianship and responsibility in ritual male circumcision in the Eastern Cape Province, South Africa. *Soc Sci Med* 2010;70:729-735.
5. Fortson JG. Mortality risk and human capital investment: The impact of HIV/AIDS in sub-Saharan Africa. *Review of Economics and Statistics* 2011;93(1):1-5.
6. Shisana O, Rehle T, Simbayi LC, & the SABSSM III Implementation Team. South African national HIV prevalence, incidence and behaviour survey, 2008: Are we turning the tide? Cape Town: HSRC, 2008.
7. Mehta SD, Moses S, Agot K, et al. Adult male circumcision does not reduce the risk of incident *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, or *Trichomonas vaginalis* infection. Results from a randomised controlled trial in Kenya. *J Infect Dis* 2009;200:370-378.

8. Van Howe RS, Storms MR. How the circumcision solution in Africa will increase HIV infections. *Journal of Public Health in Africa* 2011;2:e4.
9. Crafford A. Cut and mistrust. *Mail & Guardian* 2009. Available from <http://mg.co.za/article/2009-08-30-cut-and-mistrust> (accessed 1 November 2011).
10. Ntombana L. Should Xhosa male initiation be abolished? *International Journal of Cultural Studies* 2011;14(6):631-640.
11. Crabb C. Male circumcision to prevent heterosexual HIV transmission gets (another) green light, but traditional circumcision in Africa has 'shocking' number of complications. *AIDS* 2010;24:1-2.
12. Health Professions Council of South Africa. Guidelines for good practice in the health care professions: National Patients' Rights Charter, Booklet 3. Pretoria: HPCSA, 2008.
13. American Psychological Association. Ethical principles of psychologists and code of conduct. *American Psychologist* 1992;17(12):1597-1611.
14. Rogers J. Transactional analysis. In Wildflower L, Brennan D, eds. *The Handbook of Knowledge-based Coaching: From Theory to Practice*. San Francisco: John Wiley & Sons, 2011:29-37.
15. Carpenter LM. On remedicalisation of male circumcision in the United States and Britain. *Sociology of Health and Illness* 2010;32:613-630.
16. Southwood KE. 'And they could not understand Jewish speech': Language, ethnicity and Nehemiah's intermarriage crisis. *The Journal of Theological Studies* 2011;62:1-9.
17. O'Hara K, O'Hara J. The effect of male circumcision on the sexual enjoyment of the female partner. *Br J Urol Int* 1999;83:79-84.
18. Abdool Karim SS, Baxter C. New prevention strategies under development and investigation. In: Abdool Karim SS, Abdool Karim Q, eds. *HIV/AIDS in South Africa*. Cape Town: Cambridge University Press, 2010:268-282.
19. Reiss TH, Achieng MM, Otieno S, Ndinya-Achola JO, Bailey RC. 'When I was circumcised I was taught certain things': Risk compensation and protective sexual behaviour among circumcised men in Kisumu, Kenya. *PLoS One* 2010;5(8):1-9. doi:10.1371/journal.pone.0012366.
20. Roper WL, Peterson HB, Curran JW. Commentary: Condoms and HIV/STD prevention—clarifying the message. *Am J Public Health* 1993;83(4):501-503.
21. Moszynski P. Faulty government condoms threaten South Africa's AIDS programme. *BMJ* 2007;335:957-757.
22. Katz J. Human experimentation and human rights. *St Louis Univ Law J* 1993;38(1):7-54.
23. Paris JJ, Poorman M. 'Playing God' and the removal of life-prolonging therapy. *J Med Philos* 1995;20:403-418.
24. Grey W. Playing God. In Chadwick R, ed. *Encyclopaedia of Applied Ethics* 5. San Diego: Academic Press, 1998: 525-530.
25. Bode CO, Ikhisemogie S, Odemuyiwa AO. Penile injuries from proximal migration of the plastibell circumcision ring. *J Pediatr Urol* 2010;6(1):22-27.
26. Blomqvist A. The doctor as double agent: information asymmetry, health insurance and medical care. *Journal of Health Economics* 1991;10:411-432.
27. Lagarde E, Taljaard D, Puren A, Auvert B. High rate of adverse events following circumcision of young male adults with the Tara Klamp technique: A randomised trial in South Africa. *S Afr Med J* 2009;99:163-169.
28. Faunce T. Developing and teaching virtue-ethics foundations of healthcare whistle blowing. *Monash Bioethics Review* 2004;23(4):41-55.
29. Stuckler D, Basu S, McKee M. International monetary fund and aid displacement. *Int J Health Serv* 2011;41:67-76.
30. Rogan M, Hynie M, Casale M, et al. The effects of gender and socioeconomic status on youth sexual-risk norms: evidence from a poor urban community in South Africa. *African Journal of AIDS Research* 2010;9:355-366.
31. Ntombana L. Xhosa male initiation and teaching of moral values: An exploration of the role of traditional guardians in teaching the initiates. *Indilinga – African Journal of Indigenous Knowledge Systems* 2009;1:73-84.
32. Cho MK, Magnus D. Therapeutic misconception and stem cell research. *Nature Reports Stem Cells* 2007/doi:10.1038/stemcells.2007.88
33. Bogart LM, Skinner D, Weinhardt LS, et al. HIV misconceptions associated with condom use among black South Africans: An exploratory study. *African Journal of AIDS Research* 2011;10:181-187.
34. Meel BL. The myth of child rape as a cure for HIV/AIDS in Transkei: a case report. *Med Sci Law* 2003;43(1):85-88.
35. Obure AF XO, Nyambetha EO, Oindo BO. Interpersonal influence in the scale up of male circumcision services in a traditionally non-circumcising community. *Global Journal for Community Psychology Practice* 2011;1:1-11.
36. Gresenguet G, Kreiss JK, Chapko MK, Hillier SL, Weiss NS. HIV infection and vaginal douching in Central Africa. *AIDS* 1997;11:101-106.
37. Tladi LS. Poverty and HIV/AIDS in South Africa: an empirical contribution. *SAHARA* 2006;3:369-381.
38. Harries AD, Zachariah R, Enarson D. Adapting the DOTS framework for tuberculosis control to the management of non-communicable diseases in sub-Saharan Africa. *PLoS Med* 2008;5(6):e24/doi:10.1371.pmed.0050124.
39. Beksinska ME, Smit JA, Mantell JE. Progress and challenges to male and female condom use in South Africa. *Sexual Health* 2011. <http://dx.doi.org/10.1071/SH11011> (accessed 4 November 2011).
40. Shisana O, Rice K, Zungu N, Zuma K. Gender and poverty in South Africa in the era of HIV/AIDS: a quantitative study. *J Womens Health* 2010;19:39-46.
41. Bridges JFP, Searle SC, Selck FW, Martinson NA. Engaging families in the choice of social marketing strategies for male circumcision services in Johannesburg, South Africa. *Social Marketing Quarterly* 2010;16:60-76.
42. Dugger CW. In South Africa, an unlikely leader on AIDS. *The New York Times*, 14 May 2010. Available from: <http://www.nytimes.com/2010/05/15/world/Africa/15zuma.html>
43. Eagle L. Social marketing ethics: Report prepared for the National Social Marketing Centre. University of West England, Bristol: National Marketing Centre, 2009. http://eprints.uwe.ac.uk/54/1/NSMC_Ethics_Report.pdf.