

REVIEW ARTICLE

The Relationship between Female Genital Mutilation and HIV Transmission in Sub-Saharan Africa

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Abstract

Female genital mutilation (FGM) is an age-old practice that has since been linked with many health problems. This review aims to highlight some of the controversies trailing the relationship between FGM and HIV transmission in sub-Saharan Africa. A literature search was conducted on the subject matter. This was done using articles published in English while limiting the geographical coverage to sub-Saharan Africa. Three themes were noted. These themes include: Direct causal link between FGM and HIV transmission; indirect causal link between FGM and HIV transmission and a negative or no association between FGM and HIV transmission. While many of the arguments are within scientific reasoning, the researches supporting the views seem to lack the necessary objectivity. This study underscored the need for a more objective lens in viewing and conducting research on the relationship between FGM and HIV transmission in sub-Saharan Africa. *Afr J Reprod Health 2013 (Special Edition); 17[4]: 156-160*.

Keywords: Female Genital Cutting, Female circumcision, gender, sexually transmitted infection.

Résumé

Les mutilations génitales féminines (MGF) est une pratique séculaire qui a depuis été lié à de nombreux problèmes de santé. Cet examen vise à ressortir certaines des controverses suscitées par la relation entre les MGF et la transmission du VIH en Afrique subsaharienne. Une recherche bibliographique a été menée sur le sujet. Cela a été fait en utilisant des articles publiés en anglais, tout en limitant la couverture géographique à l'Afrique subsaharienne. Trois thèmes ont été notés. Ces thèmes sont les suivants: Lien de causalité direct entre les MGF et la transmission du VIH ; le lien indirect de causalité entre les MGF et la transmission du VIH et une association négative ou nulle entre les MGF et la transmission du VIH. Alors que la plupart des arguments sont dans le raisonnement scientifique, les recherches qui soutiennent les opinions ne semblent pas avoir l'objectivité nécessaire. Cette étude souligne la nécessité d'une lentille plus objective dans la visualisation et la recherche sur la relation entre les MGF et la transmission du VIH en Afrique subsaharienne. *Afr J Reprod Health 2013 (Edition Spéciale); 17[4]: 156-160*.

Mots-clés: Excision génitale féminine, excision, sexe, infections sexuellement transmissibles.

Introduction

Female genital mutilation (FGM) is a practice whose history predates many other traditional practices that have since been abolished. This resilient practice impinges significantly on Human right and gender equality issues. Recently, there has been an increasing curiosity about its role in many health problems¹. The World Health Organization (WHO) defines FGM as the removal of part or all of the external genitalia and /or injury to the female genital organ for cultural or other non-therapeutic reasons¹. Over 120 million girls or

women have had some form of FGM with yet about 2 million girls having great probability of undergoing genital mutilation yearly². Majority of those affected by this practice live in 28 African countries (mostly Sub-Saharan)². In Africa, it is estimated that 92 million girls older than 10 years of age have had female genital mutilation³. Concurrently, sub-Saharan Africa was responsible for 67% of people living with HIV and 75% of all AIDS related deaths in 2007⁴. Women account for 60% (unlike 50% globally) of HIV infection in sub-Saharan Africa⁵. Researchers are beginning to turn spotlight on possible associations between

FGM and HIV transmission. Marked racial disparity in HIV prevalence among women in a heterogeneous society like South Africa⁶ lends credence to the fact that cultural and socio economic factors among other factors play important roles in HIV transmission among African women. Hence, there is an urgent need to assess the direct and/or indirect relationship or negative association between FGM and HIV transmission in a low resource, traditional setting like sub-Saharan Africa where the practice of FGM has been entrenched.

This literature review aims to identify the relationship between FGM and HIV transmission in sub-Saharan Africa. This review considers the role of FGM and varying sexual behaviour of circumcised women on HIV transmission while excluding economic and other influences on the transmission of HIV.

Data Sources

An electronic literature search was done using these keywords - "female genital mutilation" OR "female genital cutting" OR "Female circumcision" AND "HIV transmission". The various synonyms of FGM were tried and this is also represented in this article.

The electronic database used include: Pubmed/ Medline, Social science citation index, and WHO publications and subsequent snowballing of referenced articles.

A publication in English language was the main criterion as the core findings and results of the article may be lost if translation is done from original language to English. Year of publication was not selected as a limit to the search as some of the older articles showed significant relevance to the research question. Search phrase used was "female genital mutilation and HIV transmission" reflecting the title. Subsequently, peer-reviewed articles which focused on FGM and HIV transmission in Sub-Saharan Africa were selected to ensure that the focus on sub-Saharan Africa is maintained.

A library of 69 articles was initially created. Exclusion criteria were articles whose focus was on male circumcision and/or articles which focused on non-African countries. Twenty articles

were used for analysis based on inclusion criteria highlighted above. The results were grouped into three themes based on similarities in the findings.

Discussion

Themes identified include:

1. Direct causal link between FGM and HIV transmission.
2. Indirect causal link between FGM and HIV transmission.
3. Negative or no association between FGM and HIV transmission.

Direct causal link between FGM and HIV transmission

Many researchers have hypothesized that there may be a direct causal link between FGM and HIV transmission. Proponents of this argument hinge it on potential transmission using the same unsterilized cutting instrument to perform FGM for a cohort of girls⁷. This line of argument has been further corroborated by various research findings which found quite remarkable percentage of circumcised self-reported virgins testing positive for HIV with a prevalence of 6.5% in a Zambian group⁸. Hence, suggesting that there are other significant factors accounting for HIV transmission besides sexual intercourse. Furthermore, a researcher found that circumcised self reported virgins had much greater odds of being HIV positive during adolescence as against their uncircumcised counterparts⁹. However, this trend was reversed when he considered adult females (regardless of sexual experience) and this trend of more uncircumcised women testing positive remained so in the older age group⁹. Plausible reasons advanced for the reversal of the trend of HIV being more common in the uncircumcised females is the mortality of HIV positive circumcised persons during the period of adolescence or years after contracting the virus. This researcher however admitted that FGM alone cannot explain HIV infection among virgins as some infected uncircumcised virgins have also been noted⁹. Hence, there are other possible non-sexual transmission routes among uncircumcised self-reported virgins which demands exploration.

Limitations of this study include; families who practice FGM for moral or religious reasons are likely to encourage under reporting of pre-marital sexual activity¹⁰. Hence the validity of the self-reporting of virginity may be queried. Many of the self reported virgins may actually be sexually exposed while reporting otherwise¹⁰. Equally important limitation is the rarity of mass genital cutting with same instrument which makes an objective ethical research in this regard challenging.

An indirect causal link between FGM and HIV transmission

Various mechanisms have been suggested among which are

Linkage between FGM, Sexually Transmitted Infection (STI) with Genital Ulcer disease (GUD) and HIV transmission.

Studies from Nigeria showed that circumcised women have 4 times odds of having GUD in comparison with the uncircumcised women¹¹. Hence, there is increased risk of HIV transmission during sexual intercourse due to a breach in the vagina mucosa¹¹. Moreover, there is a higher risk of bacterial vaginosis and Herpes simplex type 2 infections in circumcised women¹¹. These two are recognized risk factors of HIV transmission². However, no increased risk has been identified with the severity of type of FGM². One limitation of this study is, ignoring the sexual behaviour of the participants in the study. This may be the missing link in these two indirect relationships. Conversely, a research finding showed that uncircumcised women had higher odds of being HIV positive than women who were circumcised but clarified that this holds true only when they had a much older first union sexual partner⁹. However, no explanation was given for this relationship. In addition, studies that found a non-significant positive association between FGM and bacterial vaginosis failed to find any association between circumcision and HIV prevalence.

Abrasion and easy bruisability of genital mucosa enhancing susceptibility to HIV infection is another reason that has been offered. This

increases the risk of bleeding during coitus presenting a greater chance of HIV transmission during coitus^{12,13}.

Anal intercourse as an alternative to painful vaginal intercourse¹⁴. Anal intercourse is known to increase the risk of HIV transmission¹⁵. One great limitation of the above is that while the above may be within the confines of scientific reasoning, they are yet to find roots in objective scientific research. In a setting where FGM is practiced for preservation of moral values, it will be difficult to objectively study the prevalence of anal intercourse among those that have had FGM as it will be under reported if reported at all.

Requirement for blood transfusion following FGM-Another reason that has been advanced to buttress the association between FGM and HIV transmission is the requirement for blood following excessive bleeding from the procedure. This is based on poor HIV screenings that characterize most blood units in sub-Saharan Africa¹⁶. This claim cannot be fully substantiated because of the low HIV prevalence in the age group in which FGM is performed making an objective study difficult.

Increased requirement for blood transfusion during child birth in circumcised women due to excessive blood loss. This may increase the odds of HIV transmission particularly in a setting like sub Saharan Africa where universal screening precaution is not practiced¹⁷.

Sexual intercourse before wound of FGM is healed

This has been proffered as a possible reason for increased HIV transmission among women that have had FGM⁴, but there is dearth of research to substantiate this claim.

Negative or no association between Female Genital Mutilation and HIV transmission

While many research findings are yet to substantiate the association between FGM and HIV transmission, opponents of the anti FGM crusade have forwarded research findings that show negative association between these two. According to a research finding, certain ethnic

group that practiced the most severe type of FGM (e.g. Sudan and Ethiopia) have low prevalence of HIV while high prevalence of HIV were noted in the group that practiced the mild type of FGM or practiced no FGM at all¹². A limited literature review proposed that available data did not show mild forms of FGM as being harmful¹⁸. Limitation of this study is that the mean number of sexual partners, STI prevalence and sexual mixing with other ethnic group were not studied.

Many researchers have lent their voice to this negative association terming the anti FGM crusade linking FGM to HIV transmission as a desperate measure to abolish FGM. One of the anti FGM proponents say that if there is “evidence linking FGM with the transmission of HIV; this may become the best weapon in the arsenal for the eradication of this practice”¹⁹. Researchers in this school of thought are alleging double standards in promoting male circumcision and permitting non-medically necessary cosmetic genital surgeries which have analogous types in FGM²⁰. They further stretch the argument saying the same legal law that condemns FGM should apply to male circumcision¹³. All these have been advanced as the plausible reasons in trying to link FGM with HIV transmission. However more research is needed in this grey area.

Conclusion

This review captures the debate and controversies involved in linking FGM and HIV transmission in sub-Saharan Africa. While the hypothesis and argument supporting the association are covered within the limits of scientific reasoning, very few objective researches have been able to affirm the claim of positive association between these two. Direct and indirect means have been purported while negative association in certain ethnic group makes this issue more confounding.

Many of the researches may have been probably fuelled by the sentiments of entrenching or abolishing FGM. These sentiments will in no small measure becloud scientific reasoning and judgment. An objective lens is therefore required in formulating and viewing research questions that will objectively address this issue while tackling the limitations of previous research findings. It

will be interesting and rewarding to disaggregate the various types of FGM and research their association with HIV transmission. This may help to lay to rest the controversies surrounding this issue or give scientific backing to stopping FGM as a means of curbing HIV transmission in sub-Saharan Africa.

Declaration

The manuscript represents the work of the author, the conception; literature search and manuscript were done by the sole author.

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