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Messages about male circumcision aren't clear: why this is dangerous

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In March 2007, international experts endorsed voluntary medical male circumcision as a partial but effective way to reduce the risk of HIV infection in men. According to the World Health Organisation, medical male circumcision can reduce a man's risk of acquiring HIV from a female sexual partner by about 60%.

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This rate of risk reduction may have come from a study which compared HIV rates in a group of circumcised men with rates in a group of uncircumcised men. Millions of men in Eastern and Southern Africa have been circumcised since 2007.

But recent research casts doubt on the efficacy of voluntary medical male circumcision for HIV prevention. For example, a study of men older than 40 in a South African community found higher rates of HIV infection in men who had been medically circumcised than in uncircumcised men. Research done in Zambia found HIV infection rates to be the same in circumcised men as uncircumcised men. In addition, circumcised men showed riskier sexual behaviour than uncircumcised men.

We believe it is ethically important for people to get a clear and reliable message about the risks and benefits of a procedure before they make decisions about it.

Unclear messaging

The messaging that medical male circumcision reduces a man’s risk of acquiring HIV through penile-vaginal sex by 60% is problematic because people don’t always understand what this means. For example, evidence from Kenya shows that few clients about to undergo voluntary medical male circumcision for HIV prevention understood what a 60% reduction would mean for them.

The likely tendency was to overestimate the protective effect of being circumcised. The first randomised study evaluating whether medical male circumcision reduced a man’s risk of acquiring HIV from a female partner was conducted in South Africa and published in 2005. It showed that men took risks after being circumcised that they would not have taken before. The study showed that circumcised men had more sexual contacts after being circumcised compared to uncircumcised

men. The study found that this was because of the false notion that circumcision provides a high degree of protection from getting HIV sexually.

This isn't always the case, though. For example, a study in Uganda found that men don't always believe circumcision provides high protection and they don't always engage in riskier sexual behaviour after being circumcised.

Another study in Uganda evaluating male-to-female HIV transmission concluded that circumcision does not reduce women's risk of getting HIV from male sexual partners. This aspect is not often communicated directly to people who are about to give their informed consent before being circumcised medically for HIV prevention.

In addition, the often-quoted 60% rate of risk reduction is, in statistical language, relative and not absolute. In absolute terms, the risk of a man getting HIV from a woman is reduced by less than two percentage points through medical male circumcision.

Here's where these two very different figures come from. In the three randomised trials investigating female-to-male HIV acquisition, 1.1% of circumcised men became HIV infected after voluntary medical male circumcision and 2.5% of uncircumcised men became infected. The absolute risk reduction was 1.4 percentage points (2.5% minus 1.1%). The relative risk reduction was 56%, which is the difference in HIV incidence between the two groups (1.4%) as a percentage of the HIV incidence among uncircumcised men (2.5%).

Unintended consequences

Some circumcision campaigns for HIV prevention have included messaging that it reduces a female partner's risk of cervical cancer. But male circumcision is not a recognised or effective method to prevent cervical cancer.

This messaging is harmful because evidence shows that some sections of the public now believe, incorrectly, that having a medically circumcised partner means that there is no risk of developing cervical cancer.

Under pressure by funders and health ministries to meet voluntary medical circumcision targets set by authorities, rights abuses have occurred. In Kenya, there have been reports of circumcision providers paying boys to be circumcised, under-age circumcision (under 10 years old) and not adhering to minimum safety standards to increase circumcision speed.

Research in Zimbabwe found that performance-based targets also put stress on understaffed health departments.

Way forward

The small protective biological effect of medical male circumcision on female-to-male HIV acquisition can be outweighed by riskier sexual behaviour. This can be based on a false perception of being highly protected from getting HIV. There is also the real possibility of increased male-to-female HIV transmission following medical male circumcision.

Ethical messaging to facilitate informed consent is paramount. It must specify clearly that the direction of reduced HIV risk is female-to-male and not male-to-female. And it must make it clear that medical circumcision is not a recognised strategy to prevent cervical cancer.

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