

Controversies in Infant Development: Circumcision

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Abstract

The practice of male circumcision has been subject to debate in recent academic literature. This paper examines research on circumcision and analyzes the opposing arguments for and against the practice. Arguments in favour of circumcision follow research that suggests that the practice be used as a preventative measure for future health concerns such as STIs, penile cancer, and UTIs. Arguments against circumcision raise questions about its ethicality and the generalizability of the findings that support circumcision as a preventative measure.

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Though subject to controversy, male circumcision is currently the most common surgical procedure performed on paediatric patients (Simpson et al., 2014). It is the surgical removal of the foreskin (prepuce) from the penis (Di Pietro et al., 2017). For the purpose of this paper the term circumcision will be used to refer to the practice of male circumcision. The practice has long been rooted in certain cultures and religions such as Judaism and Islam but is now intertwined in the field of public health (Di Pietro et al., 2017). However, despite its deeply rooted history, questions have begun to arise on its ethicality. Scientific arguments in support of circumcision tend to follow the path of health-related concerns, often positing that male circumcision be used preventatively to reduce the risk of urinary tract infections (UTIs), penile cancer, and sexually transmitted infections (STIs) (Di Pietro et al., 2017). Arguments against circumcision suggest that the evidence that this practice reduces the risk of the aforementioned concerns is limited and not generalizable to the global population (Di Pietro et al., 2017). Throughout this paper the arguments for and against circumcision as a preventative health measure will be discussed in detail using the available research.

Circumcision as a Preventative Health Measure

Morris et al. (2017) conducted a systematic review and risk benefit analysis following 10609 publications on circumcision from January 2005 to January 2016. The research focused primarily on the prevalence of UTIs, genital cancers, and STIs, comparing circumcised and uncircumcised data. It was found in a 2013 meta-analysis of 22 studies that 32.1% of uncircumcised males had a UTI in their lifetime, compared to the 8.8% of circumcised males (Morris & Wiswell, 2013). For genital cancers, Morris et al. (2017) argue that infant circumcision reduces penile cancer risks by 95%-99%. In reference to STI prevalence Morris et al. (2017) discusses HIV. Morris et al. (2017) states that in developed countries such as the Netherlands where circumcision rates are low, rates of HIV are higher than in developed countries where circumcision is common such as Israel.

There are issues with both the data and argument that Morris et al. (2017) presents. Morris et al. (2017) often uses data from their own work and the location of many of the studies cited are in Sub Saharan Africa. Morris et al.'s (2017) argument that HIV rates are higher in developed countries with low circumcision rates could also be a result of social

circumstances meaning that there could be a reporting bias, differences in sexual behaviour patterns, or differences in access to HIV testing. Not only are these factors relevant, but Morris et al. (2017) also uses their own study to support this argument and generalizes globally with comparisons made between only two developed countries: The Netherlands and Israel.

In support of circumcision as a preventative measure, Zhang & Vermund (2022) argue that VMMC (voluntary medical male circumcision) is an effective way to reduce the risk of HIV contraction amongst heterosexual men in Sub Saharan Africa. Their review suggests that VMMC can be the most effective in reducing risk because it is a life-long protection that does not require ongoing adherence unlike condom use or pre-exposure prophylaxis (PrEP). As VMMC is a one-time surgical procedure, these authors may contend that it withstands and helps protect against the potential social factors that could influence higher HIV transmission rates. Examples of such may be a lack of well-informed sexual education practices or a lack of access to sexual safety measures such as condoms. Using observational studies and three randomized controlled trials done in Kenya, Uganda, and South Africa, Zhang & Vermund (2022) argue that for this specific region of the world where incidence rates are high and circumcision rates are low, VMMC implementation could be a viable option to help address the HIV pandemic. Though the argument and review by Zhang & Vermund (2022) specifies that VMMC may be an effective option for regions in Sub-Saharan Africa, it once again must be noted that these studies they reference to are region specific and therefore should not be generalized to the global population.

To speak on other concerns regarding public health, Tobian et al. (2010) argue that these same three randomized controlled trials done in Africa previously mentioned also showed a reduction in the risk of both herpes simplex virus type 2 acquisition and HPV (human papillomavirus) prevalence. In addition to these reductions in STI acquisition were reduced rates of bacterial vaginosis and *Trichomonas vaginalis* infection among female partners of circumcised men. Tobian et al. (2010) argues that these reductions in health-related concerns were supported by studies done in the United States as well. For example, they cite a study done in Tucson, Arizona that found that circumcised men were six times more likely to clear infection with any HPV type. Tobian et al. (2010) conclude that the American Academy of Pediatrics and other American organizations with influence must

consider the findings in these three randomized control trials and other observational studies done in the United States when making decisions about their suggestions, policies, and guidelines for parents of male newborns.

Circumcision as a Controversial Procedure

Di Pietro et al. (2017) presents newborn circumcision as something that does not satisfy the standards of a child's best interest. They argue that the evidence that many use in favour of circumcision is limited and uncertain. For the presence of UTIs Di Pietro et al. (2017) refers to a study done by Singh-Grewal et al. (2005) in which it was found that circumcision does reduce the risk of UTIs. However, it was also found in the same study that the UTI risk was only approximately 1% of young males so the number of circumcisions needed to prevent 1 UTI was 111 and therefore not a significant enough number to justify preventative circumcision. For penile cancer risk, Di Pietro et al. (2017) argues that it is an extremely rare disease and presents approximately the same incidence in the United States where circumcision is more common and northern European countries where circumcision rates are low. For rates of STIs such as HIV, it is suggested that studies arguing in favour of circumcision as a preventative measure against STIs are biased (Di Pietro et al., 2017). They refer to commonly cited studies that were done in Sub Saharan Africa and argue that these may not translate to other geographical regions of the world nor are they generalizable.

Earp (2015) speaks to the generalizations made by authors such as Morris et al. (2017) and Tobian et al. (2010). When Earp (2015) wrote his critique, the Center for Disease Control and Prevention (CDC) had recently suggested that the benefits of male circumcision outweigh the risks. He argues that the CDC guidelines are based on limited and non-generalizable data. Earp (2015) also argues that the spread of disease is much more of a complex social and situational phenomenon and is not solely dependent on anatomical factors. When discussing the benefits and risk analysis, it is suggested by Earp (2015) using legal and bioethical views that the removal of non-diseased and functional tissue without the person's informed consent is in and of itself unethical and constitutes harm. By using the argument that neonatal male circumcision is safer, cost effective, and less trauma inducing, one is neglecting to acknowledge that male newborns are less likely to be able to inform medical staff if something goes wrong or if they are in unmanageable pain. This also ties into the argument that there may be more reports of complications documented in adults but

there is no consistent evidence that adult circumcision is riskier by any means (Earp, 2015). This means that it could be considered more ethical to allow for males to make their own decisions regarding circumcision at a later stage in life.

In an updated study done by Frisch and Simonsen (2022) in Denmark, 810,179 non-Muslim males were studied longitudinally from birth in 1977 to 36 years old in 2003. In this study it was found that there was no reduction in risk of HIV or other STIs following circumcision. In fact, they found that out of the entire cohort, the rate of STIs was 53% higher in circumcised rather than intact males (Frisch & Simonsen, 2022). A study such as this one provides clear evidence for the argument that Earp (2015) makes that disease transmission is a socially and situationally dependent phenomenon. Though there is substantive research that supports circumcision as a preventative measure for a multitude of different health concerns, it should be noted that updated research shows that the results may be region specific and not generalizable in any case. The incidence of health-related concerns such as STIs in any specific country or region could be reflective of cultural, religious, or sexual differences. This means that researchers, institutions, and organizations should be cautious in making generalizing statements, guidelines, or policies in the future.

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