

Does science support infant circumcision?

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Abstract

According to Brian Morris (2013), “Science supports infant circumcision” and “so should skeptics.” It would be more accurate to say that ‘Brian Morris supports infant circumcision,’ and that skeptics can think for themselves. In this paper, we critically assess the arguments and evidence presented by Morris in his recent article, and draw some general lessons for the ongoing debate about the science and ethics of infant male circumcision.

Key words: circumcision, male circumcision, ethics, Brian Morris, public health, paediatric medicine, prophylaxis, vaccination, surgery

Introduction

According to Brian Morris (2013), “Science supports infant circumcision” and “so should skeptics.”¹ It would be more accurate to say that ‘Brian Morris supports infant circumcision,’ and that skeptics can think for themselves. In this paper, we critically assess the arguments and evidence presented by Morris in his recent article, and draw some general lessons for the ongoing debate about the science and ethics of infant male circumcision.

Brian Morris and the case against the foreskin

For over a decade, Professor Brian Morris of the University of Sydney has been waging a quixotic campaign against the foreskin.^{2,3,4,5,6} Although he has “no involvement in clinical medicine,”⁷ and “cannot claim any more expertise on the topic of male circumcision than any other scientist,”⁸ Morris has nevertheless sought to demonize the humble prepuce. So dangerous, according to Morris, is this particular part of the normal male anatomy—in terms of both personal and public health—that it should be *routinely* removed from children’s bodies before they can form their own opinion.⁹

The first major articulation of these views can be found in Morris’s 1999 trade book, *In Favour of Circumcision*.⁸ Just as in his piece for *The Skeptic* – to which we are currently responding – in this work, Morris draws almost exclusively on the highest possible extremes of available morbidity statistics, and describes them “in their grimmest possible light.”² According to Professor Basil Donovan, a leading sexual health researcher, the book was so “unbalanced” in this respect, and even “dangerous” in its misleading assertions, that it provided “sufficient grounds for the publishers to withdraw [it].”² Also of note is a series of pamphlets written by Morris,^{3,4} published in 2006 and 2007 with the controversial circumcision advocacy group, The Gilgal Society.⁵ These pamphlets, designed to convince expecting parents to circumcise, openly extol the virtues of foreskin-removal while trivializing drawbacks and risks. Circumcision should be “made compulsory,”⁶ according to Morris, and “any parent not wanting their child circumcised really needs a good talking to.”⁶

Needless to say, these views fall outside the mainstream.² Even physicians who contend that infant circumcision could be permissible if agreed to by the parents—a perspective which is itself the subject of ongoing bioethical dispute¹⁰—have issued public statements condemning Morris for his much more extreme and unsubstantiated conclusions.

For example, in response to another recent publication¹¹ (in which Morris argues that the benefits of circumcision outweigh the risks by a factor of 100 to 1, and that the procedure should be considered analogous to childhood vaccination), the paediatrician and vocal proponent of (actual) childhood vaccination, Dr. Russell Saunders, wrote:

“Having reviewed Dr. Morris’s study, I find his statements about the benefits of circumcision ... overblown, and the comparison with vaccination ... frankly preposterous.”¹² Professor Kevin Pringle, Chair of Obstetrics and Gynecology at the University of Otago, described as “worrisome” the “complete lack of any attempt [by Morris] to accurately document the risk of ... complications of circumcision” and similarly denounced the vaccine analogy as “absurd.”¹³

For our part, we shall argue that Morris’s broader claim is flawed and misleading: ‘Science’ can neither ‘support’ nor ‘oppose’ infant circumcision. Nor can it take *any* normative position, on any subject, all by itself. In the best-case scenario, science could potentially tell us whether circumcised men (compared to genitally intact men) were more or less prone to certain pathological conditions ... but the scenario is not best-case. Instead, the existing medical data on circumcision are so contested and inconsistent that we are nowhere close to seeing a scientific consensus on these questions;¹⁴ and even if we were, we would still have to think through the ethics involved. ‘Science’—alone—cannot save us the effort.

The ethics of infant male circumcision

The underlying ethical issue is this. Is it permissible to cut off a substantial part of a child’s genitals—up to 50% of the motile skin system of the penis,¹⁵ or dozens of square centimeters^{16,17} of touch-sensitive¹⁸ tissue in the adult organ—in the absence of disease or deformity, in the absence of medical necessity, and in the absence of informed consent?¹⁹

Morris’s argument seems to be as follows. Since this normal, healthy tissue might *one day* fall prey to some disease, we should remove it as early as possible, i.e., in infancy, when the surgery is claimed to have fewer complications. But there are problems with this view: (1) the diseases in question are mostly rare,²⁰ particularly in developed nations; (2) they are almost entirely avoidable by making appropriate behavioural choices;¹⁹ and (3) they are otherwise treatable, in most cases, by non-surgical means that do not require the removal of any tissue (and thus preserve maximum functionality).^{21,22}

For a point of comparison, we would not ordinarily try to prevent cold sores (for example) by cutting off children's lips, nor to ward off tooth decay by pulling out their teeth. Consider also the case of breast cancer. Little girls are not at risk of breast cancer, but *one day* they might become afflicted: even so, no one would suggest that we remove their mammary buds in infancy as a way of reducing this future risk. The girl herself might have a different preference concerning her own body, and we consider it her choice to make.

Of course, breasts, lips, and teeth might be seen as less 'expendable' than the lowly foreskin. That is a subjective value judgment, and it is one that people are free to make—at least when it comes to their own bodies. But if a man has been circumcised in infancy, he might not know very much about the foreskin (including its anatomy and functions),²³ making it easier for him to discount its value. On the other hand, if a man has retained his foreskin (as most men around the world have, including most men in developed nations) then it is unlikely he will want to give it up.

The situation is very different when it comes to children. In simplest terms, doctors should try to avoid removing tissue—especially normal, healthy, and functional tissue—from the 'private parts' of people who cannot consent.¹⁹ To do so is to expose the child to unnecessary surgical risk, to disregard the potential significance²⁴ of the tissue to the person whose bodily integrity²⁵ is at stake, and to ignore the existence of more conservative, more reliable, and more autonomy-respecting means of achieving the same health ends.²⁶ (When 'the child' happens to be a girl, of course, these points don't even need to be raised.)

The difference with vaccination, which *is* appropriately done prior to illness, is that it is both the safest and most effective, as well as least ethically problematic means of preventing the disease(s) in question. Many of these diseases are quite dangerous or even life-threatening in childhood, with a high risk of causing serious problems, as well as easily communicable to others. None of this can be said of infant circumcision (nor of the diseases whose risk it has been said to reduce).^{12,19,27} More importantly, vaccination does not require the removal of a sensitive genital structure that many people come to appreciate.

Urinary tract infections

To further understand why ‘science’ is only part of the picture, consider the example of urinary tract infections (UTIs). Since these are the only one of Morris’s list of potential maladies that are of even theoretical relevance to infants,²² they are worth reviewing in some detail.

Citing an article written by himself, Morris claims that “neonatal circumcision confers 10-fold protection against UTIs.” Although a recent Cochrane Review²⁸ found no reliable evidence that infant circumcision does in fact protect against UTIs, let us go along with Morris for the moment. As Benatar and Benatar²⁹ explain, it is not enough to establish “an increased risk of UTI among uncircumcised boys” because the actual “significance [i.e., clinical importance] of this risk needs to be assessed” in a proper context.

The proper context is this: the “10-fold” difference in incidence of UTI is what one gets when one divides two very small percentages against each other: 0.15% (for circumcised boys) and 1.5% (for intact boys). In both cases, rates are low. As the Benatars²⁹ explain, this is the same thing as saying that “UTI does *not* occur in 99.85% of circumcised infant males and in 98.5% of un-circumcised infant boys.” In the rare event that some unlucky child does in fact become infected, UTIs are both “easily diagnosed and treatable, with low morbidity and mortality.”²⁹

So let us do some maths and a bit of ethics. According to one recent estimate, about 111 circumcisions would have to be performed to prevent a single case of UTI.³⁰ But a more conservative, humane, and effective course of treatment would be to prescribe oral antibiotics — if and when an infection does occur. This is just what we do for girls, who get UTIs (after the age of 1) about 10 times more frequently than boys do,³¹ with no pre-emptive surgery recommended.

The Canadian bioethicist Margaret Somerville has put it this way: “If we view a child’s foreskin as having a valid function, we are no more justified in amputating it than any other part of the child’s body unless the operation is medically required treatment and the least harmful way to provide that treatment.”³² In other words, if the actual chance of something ‘going wrong’ is relatively low (as it is for every one of the possible health problems cited by Morris),²⁰ and if there are safer and more effective means of preventing and/or treating those problems that don’t involve performing surgery on a child, then the argument for infant circumcision falls apart.

What does the science say?

Keeping these ethical points in mind, what exactly does ‘the science’ have to say? A few general points to begin with. First, ‘science’ is not sealed off from human concerns and foibles, and its literature is not a record of incontrovertible ‘facts.’^{33,34} As Marcus³⁵ makes the point: “all science is provisional ... science is not just about conclusions, which are occasionally incorrect. It’s about a methodology for investigation, which includes, at its core, a relentless drive towards questioning that which came before.”

Nor is science immune from human biases. Because the genitals are the site (and source) of so many taboos, heated emotions, and even religious rituals, it can be hard to separate ‘the science’ on circumcision from the contexts in which it is generated.³⁶

Consider the most recent policy statement on circumcision by the American Academy of Pediatrics (AAP)—much vaunted by Morris in his article. One of the authors of this statement, Dr. Andrew Freedman, revealed in an interview that he had previously circumcised his own son on his parents’ kitchen table. “But I did it for religious, not medical reasons,” Freedman reported. “I did it because I had 3,000 years of ancestors looking over my shoulder.”³⁷

In this example, we can see that both scientific and non-scientific factors may influence people’s attitudes toward circumcision—including people who are charged with setting policy. Indeed, as Muller has recently shown, based on a survey of more than 500 Canadian doctors, “Although most respondents stated that they based their decisions on medical evidence, the circumcision status of, especially, the male respondents played a huge role in whether they were in support of circumcisions or not. Another factor that had an influence was the circumcision status of the respondents’ sons.”³⁸

According to Dr. Freedman and his colleagues, “the health benefits of newborn male circumcision outweigh the risks.”³⁹ That is a very definitive-sounding conclusion. But if one takes the time to read the technical report⁴⁰ behind the new policy, one will find (on page 772) that “the true incidence of complications after newborn circumcision is unknown” and that “it is difficult, if not impossible, to adequately assess the total impact of complications,” given the poor quality of the existing evidence. As Garber remarks: “It is inconceivable that the AAP could have objectively concluded that the benefits of the procedure outweigh the risks when the ‘true incidence of complications’ isn’t known.”⁴¹ Instead, as the AAP stated in a later publication—

after drawing considerable fire from paediatric and statistical experts^{22,42,43}—their main conclusion was based on a “feeling.”⁴⁴

Finally, even if the risks of infant circumcision were in fact known with certainty, it would still fail to settle the issue. This is because the appropriate test for evaluating non-therapeutic surgeries such as circumcision is not benefit vs. “risk of surgical complications” but rather benefit vs. risk of *harm*. One relevant harm is simply the loss of healthy tissue (not to mention the loss of personal choice in the matter, if the surgery is performed before an age of consent). In *Tortorella v. Castro*,* for example, a California Appeals Court stated, “[I]t seems self-evident that unnecessary surgery is injurious and causes harm to a patient. Even if a surgery is executed flawlessly, if the surgery were unnecessary, the surgery in and of itself constitutes harm.” Accordingly, it is only by implicitly assigning a value of ‘zero’ to the penile prepuce (as well as to the notion of bodily autonomy) that the AAP could come to consider the—unknown—risk of “surgical complications” as being the only relevant drawback to infant circumcision.

Other paediatric authorities

Other paediatric authorities take a different view. But readers of Morris’s article could be forgiven for thinking that there were only two real statements of note here (and that both were in agreement): one by the AAP and one by an organization called the Circumcision Foundation of Australia. By contrast, here is the conclusion reached by 38 experts in child health and epidemiology from the UK, mainland Europe, and Canada in their public rebuke to the AAP in the journal *Pediatrics*:

Only one of the arguments put forward by the American Academy of Pediatrics has some theoretical relevance in relation to infant male circumcision; namely, the possible protection against urinary tract infections in infant boys, which can easily be treated with antibiotics without tissue loss. The other claimed health benefits, including protection against HIV/AIDS, genital herpes, genital warts, and penile cancer, are questionable, weak, and likely to have little public health relevance in a Western context, and they do not represent compelling reasons for surgery before boys are old enough to decide for themselves.²²

Morris also failed to mention the statement by the Royal Dutch Medical Association (KNMG):

* *Tortorella v. Castro*, 43 Cal. Rptr. 3d 853, 860 (Cal. Dist. Ct. App. 2006).

The official viewpoint of KNMG and other related medical/scientific organisations is that non-therapeutic circumcision of male minors is a violation of children’s rights to autonomy and physical integrity. Contrary to popular belief, circumcision can cause complications – bleeding, infection, urethral stricture and panic attacks are particularly common. KNMG is therefore urging a strong policy of deterrence. KNMG is calling upon doctors to actively and insistently inform parents who are considering the procedure of the absence of medical benefits and the danger of complications.⁴⁵

The President of Germany’s Paediatric Society agrees: “There is no reason from a medical point of view to remove an intact foreskin from underage boys or boys unable to give consent. ... The statement from the AAP ... has been graded by almost all other paediatric societies and associations worldwide as being scientifically untenable.”⁴⁶

Thus, as a Fellow of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists concluded—in another published critique—the AAP technical report is “epidemiologically incompetent and an embarrassment to the AAP.”⁴³

What is the Circumcision Foundation of Australia?

It is surprising that Professor Morris would rest so much of his case on an “epidemiologically incompetent” analysis that has been dismissed by global authorities. But he did draw upon other sources as well. Specifically, Morris conflates—by using passive and ambiguous language—the findings of both the AAP and the Royal Australasian College of Physicians (RACP) with those of an obscure pro-circumcision organization called the ‘Circumcision Foundation of Australia’ (CFA).

According to this organization, “by contrasting the degree of risk of complications with a tally of each of the benefits it was concluded that over their lifetime up to half of uncircumcised males will suffer a medical condition as a result of retaining their foreskin.”¹

That does sound like a cause for concern—assuming that the numbers are valid. But Morris leaves out some important information. For example, what counts as a ‘medical condition’? Is it something really serious, or can it refer to something trivial? If some of the conditions are serious, are they particularly common, or are they in fact quite rare? Is surgery required to address these ‘conditions,’ or could they be treated more conservatively?

Morris doesn’t say. Of course, *any* part of the body might fall prey to some ‘condition’ (however that is defined) over the very long course of a lifetime. But one has to ask whether the foreskin is

actually special in this regard, and whether the preventative removal of body parts is the most sensible approach to resolving such issues.

Let us take a look at one of the ‘conditions’ listed by the CFA. Along with such issues as urinary tract infections (which we have discussed) and penile cancer (which is so rare in Western countries that reliable statistics cannot be generated),⁴⁷ the CFA refers to something called ‘phimosis.’ Phimosis is the condition of having a tight foreskin. While it is true that surgically removing the foreskin will prevent its ever becoming too tight, ‘phimosis’ can also be treated with a topical cream and a little bit of gentle stretching.⁴⁸ Why not mention alternative treatments?

There are other troubling omissions as well. For example, Morris fails to state that the CFA is “not aligned with any medical body,”⁴⁹ and is in fact a political lobbying group set up by Morris’s own associates. Members of the CFA, including its President, Dr. Terry Russell,⁵⁰ and one of its board members, Dr. Anthony Dilley, derive personal incomes from performing circumcisions—in Dilley’s case, “up to 40 circumcisions per week”⁵¹—but declare no conflict of interest in their numerous publications. These include most notably their “evidence-based policy statement,”⁵² which was drafted by Morris himself.

In addition, far from being endorsed by the Royal Australasian College of Physicians, the CFA’s statement was released in 2010 in direct opposition to that of the RACP, which had concluded that: “the frequency of diseases modifiable by circumcision, the level of protection offered by circumcision and the complication rates of circumcision do *not* warrant routine infant circumcision in Australia and New Zealand.”⁵³ The RACP policy is still in force.

How do we know what evidence to trust?

Morris talks a lot about science, and says that a true “skeptic should take care to question ... claims and seek reliable evidence.”⁵¹ Yet how do we know what kind of evidence is reliable?⁵⁴ As we have seen, different doctors, from different countries, faced with the very same evidence, draw different conclusions about what that evidence shows. One thing to be very skeptical about, then, is any argument that makes it seem like the evidence in favour of circumcision is somehow settled or uncontroversial.

Another reason to be skeptical has to do with the problem of ‘publication bias.’ This is a bias against publishing studies that do not show a benefit of some intervention (in our case,

circumcision) due to the well-known tendency of academic journals to favor the publication of positive results.⁵⁵ In other words, studies that *do* seem to show some benefit end up being over-represented in the published literature—including many that turn out to be statistical flukes, or artifacts of bad design. In addition, Smith⁵⁶ argues that the current system of scientific peer review is flawed, ineffective, and vulnerable to politicking and other forms of abuse; and Ioannidis⁵⁷ has famously shown that more than half of published research in the biomedical sciences may be false. So some caution is certainly in order.

Sexually Transmitted Infections (STIs)

With these points in mind, consider that Morris's strongest argument for routine circumcision is that it may reduce the risk of some STIs. There are two problems here: (1) children are not at risk of STIs (unless they are molested), and (2) there is no clear evidence that circumcision does in fact substantially reduce the risk—at least not when compared against drawbacks and harms. For example, two recent studies out of New Zealand came to opposite conclusions on this question, based on similar data, collected from similar cities, in the same region of the country, in two cohort groups born only five years apart.

Based on data from Christchurch, Fergusson⁵⁸ claimed that circumcision could reduce the risk of common STIs by about 50%, so that routine neonatal circumcision offered substantial benefits. The study attracted immense publicity. It also attracted a barrage of criticism in the form of e-letters to the journal, leading the author to admit that the result was anomalous: “the evidence as it stands ... is not sufficiently compelling to advocate routine circumcision.”⁵⁹

The second study by Dickson,⁶⁰ based on data from Dunedin, confirmed this revised opinion: up to 32 years of age, circumcision made no significant difference to the risk of STI acquisition. In fact, circumcised men were numerically more at risk, with 24.4 cases per 1000 person years, compared with 23.4 cases among the intact. “These findings are consistent with recent population-based cross-sectional studies in developed countries, which found that early childhood circumcision does not markedly reduce the risk [of] common STIs in the general population.”⁶⁰

Science and the need for skepticism

The lesson here is that ‘science’ is not as simple as attaching a reference to an assertion in a paper. You have to dig a little deeper. What is the reference? What does it say? Who wrote the

paper? In what context? Are there any conflicts of interest? How reliable is the research that's been carried out? What criticisms have been raised? By whom? What are their motivations? Have the authors replied? Did they make a good point? And so on.

You can try this approach with Morris's own article. Take out your copy of *The Skeptic* from Autumn 2013, and turn to the reference section on page 33. You will find that references 3, 5, 6, 22, 23, 24, 25, 30, 31, 33, 39, and 50—that's nearly a quarter of the whole list—are to Morris's own polemics. Five of these (of which four are non-peer-reviewed letters to the editor) are attacks on research that found negative consequences for circumcision. Four are co-authored with the "internationally recognized circumcision activist"⁶¹ Jake Waskett. And not one of his 50 citations is a reference to rebuttals of his criticisms that have been published by authors of the original research.

Morris writes that "the gold standard of epidemiological evidence is the large randomized controlled trial [RCT]," repeating what is now a cliché. But Kaptchuk⁶² argues that these trials are more akin to a "golden calf" than a "gold standard" since they are not immune to various sources of bias. For example, scientists who have 'a horse in race' (such as large research grants based on previous findings) can unconsciously alter the design of RCTs so that they are more likely to show the desired effects. "Two such trials," Morris continues, "found that ... circumcision had no adverse effect on sexual function, sensation and satisfaction."

This is an oversimplification. In fact, the evidence here, just as with the evidence for protection against STIs, is contradictory and inconclusive.^{63,64} For one thing, the trials Morris is referring to were carried out in Africa with consenting adult men—not infants. If anything, then, they tell us about the effects of *adult* circumcision, which is not something anyone objects to. Moreover, these adults (not infants) were asked about their desire, satisfaction, etc., on a series of makeshift 4-point scales. The options were 'none,' 'low,' 'medium,' and 'high,' and the questions were asked up to 24 months after the surgery.

But if circumcision has a desensitizing effect on the head of the penis, due to exposure to irritation from the environment,⁶⁵ this might not be detectable after only 24 months. That is especially true if one considers how uninformative the questions were: what is a 'medium'

amount of sensitivity? In contrast, when an infant’s foreskin is removed, the unprotected head of the penis has to rub against clothing for well over a decade before sexual debut—which is a lot more time for potential problems to arise.

Apart from this issue, there is a deeper concern, which is that sexual experiences are subjective and complex: they cannot be reduced to a simple questionnaire.⁶⁶ As the authors of one of the ‘RCT’ papers cited by Morris report: “The questionnaire [we used] focused on difficulties with sexual function and did not ascertain more subjective aspects of sexual satisfaction such as changes in time to ejaculation, subjective intensity of orgasm or the partner’s satisfaction with intercourse.”⁶⁷ The authors of the other paper cited by Morris state: “This study has several limitations. We did not have direct observation of sexual function, partner reports, or physiologic or laboratory indicators of sexual dysfunction. [We also] did not use validated instruments.”⁶⁸

This last part is a serious problem. According to one sexual health epidemiologist who reviewed the instruments used in those studies (they were not published or made publicly available), the actual questions were so poorly designed that they could not have detected a difference in sexual outcomes, even if they existed.⁶¹ So not only is Morris relying on data that come from adult circumcision to make a point about infant circumcision (which is a category mistake),⁶⁹ he is relying on data with major limitations of their own. Even the authors of the meta-analysis cited by Morris acknowledge this: “[our findings] should be evaluated in light of the low quality of the existing evidence and the significant heterogeneity across the various studies.”⁷⁰

Morris’s misleading citations

On the other side of the coin, Morris contends that “research claiming circumcision harms sexual function and sensitivity have [sic] been discredited because of serious flaws.”⁷¹ Note that all four of the references he gives are to his own non-peer-reviewed letters to the editor, and that he makes no mention of author replies. This pattern of obfuscatory self-citation was recently noted by a prominent Danish researcher in the *International Journal of Epidemiology*:

[As] in critical letters to the editor following other recent studies that failed to support their agenda, Morris et al. air a series of harsh criticisms against our study. As seen, however, the points raised are not well founded. It seems that the main purpose, as with prior letters, is to be able in future writings to refer to our study as an ‘outlier study’ or

one that has been ‘debunked’, ‘rejected by credible researchers’ or ‘shown wrong in subsequent proper statistical analysis.’ ... As these critics repeatedly refer to Morris’s pro-circumcision manifesto as their source of knowledge, their objectivity must be questioned.⁶¹

This researcher turned out to be prescient. His ‘discredited’ study is the target of Morris’s reference #24—with no mention of the author’s reply.

Circumcision and sexual function – getting back to the ethics

Morris claims that “women find sexual activity to be better with men who are circumcised” and cites a survey with a 55% response rate from 1988.⁷¹ But only 24 of the women surveyed had experienced sex with both circumcised and uncircumcised men, and so were actually in a position to compare. In addition, the study was carried out in Iowa in the American Midwest, where circumcision is a cultural norm and rates are the highest of anywhere in the developed world.⁷² So, 24 Iowan women from the 1980s show a statistically significant preference for a type of penis they’ve been raised to see as normal. This should not come as a surprise.

But what about women in Europe, Latin America, China, India, Australia, New Zealand,⁷³ Canada, the Western United States, or anywhere else in the world where circumcision is rare or non-existent? Would Professor Morris be willing to share with us the results of surveys carried out in these locations?

As Sara Johnsdotter has pointed out, there is no 1:1 relationship between degree of genital cutting and subjective sexual pleasure—for either the man or for his partner⁷⁴—so circumcision will affect different couples differently.⁷⁵ Catherine Hankins, who is a proponent of adult circumcision in sub-Saharan Africa, agrees: “any difference[s may arise] from how the woman responds, her preconceived ideas about male circumcision, and how she has been socialized.”⁷⁶

All the more reason, then, to allow the individual male to decide what to do with his own penis in the context of his actual adult social contexts and his own romantic relationships.

Of course, any sensation *in the foreskin itself* is guaranteed to be eliminated by circumcision, as are any sexually-relevant functions associated with its manipulation. In other words, a man without a foreskin cannot ‘play’ with his foreskin, nor can he glide it back and forth during sex. That these can be pleasurable activities, with great subjective value to genitally intact men and their partners, is uncontroversial.²⁴ To say that circumcision makes “no difference” (therefore) to

sexual function or satisfaction—even granting the findings cited by Morris—is to have an extremely impoverished definition of those terms.

It is unlikely that the foreskin plays no role in sex. From an evolutionary perspective, form is related to function, and the ‘form’ of the male and female genitalia have evolved to ‘function’ together over millions of years.⁷⁷ But even if the foreskin were somehow irrelevant to sexual experience, it would still make a difference to the appearance of the genitals—which many people prefer ‘uncut.’⁷⁸ Since the matter is entirely subjective and personal, the individual male should be left to make his own decision.

Circumcision and autism?

Morris exhibits carelessness with his sources. For example, he cites a study⁷⁹ showing a link between neonatally administered paracetamol (a common painkiller) and autism—in support of a convoluted argument about infant circumcision and UTIs. His reasoning goes something like this. Since UTIs in infancy are painful, and infant pain is often treated with paracetamol—now (apparently) linked to autism—circumcision should be performed in infancy in order to reduce the risk of getting UTIs. But circumcision itself is extremely painful, and is frequently treated with paracetamol,⁷⁹ so this strategy is not likely to work.

In fact, the authors of the ‘paracetamol’ study were aware of this. Instead of correlating paracetamol and autism directly, they used a proxy variable – something that they assumed would be *related* to paracetamol exposure, but would be easier to quantify in terms of data. Astonishingly, the proxy variable they settled on was ... infant circumcision status.

In other words, Morris chose to cite a study that found “a strong correlation between country-level autism [prevalence] in males and a country’s circumcision rate”⁷⁹—a nearly perfect correlation of $r = 0.98$ —as evidence that *circumcision should be performed in infancy as a way of preventing autism*. But taken at face value, the study’s actual findings suggest the opposite.

Hygiene

Nowhere is Morris’s disdain for normal genitals more evident than in his peculiar remarks about hygiene. Citing no evidence, Morris surmises that “good hygiene” must be difficult for intact males, because boys with foreskins have to retract them first to clean properly. Since rolling back a foreskin takes a fraction of a second (and may even feel quite pleasurable to do)⁸⁰ one wonders

what the problem is. “Many boys don’t or can’t retract their foreskin until well into their teens,” Morris explains, “mostly because they have phimosis.”

Actually, as few as “0.6% of boys [are] affected by [pathological phimosis] by their 15th birthday” according to a study in the *British Journal of Urology International*.⁸¹ Phimosis is also easy to treat (as we have seen); and if the foreskin is in fact non-retractile in early childhood (as it is naturally at birth and as it remains for the first several years of life),⁸² then no special care is needed: gently washing the outside of the penis is all that “good hygiene” requires.⁸³

Victorian medicine and British royalty

Morris refers to “an article by a jazz musician” in order to discredit the scholarly consensus that Victorian-era circumcision was used to treat “a wide array of medical conditions that today seem unconnected to circumcision” such as “epilepsy and bed-wetting to ... masturbation ... and general sexual desire” – all of which is true.⁸⁴ The “jazz musician” in question is Dr. Frederick Hodges, a medical historian with a D.Phil. from the University of Oxford. Dr. Hodges is one of the world’s leading experts on the history of circumcision. He also happens to be an accomplished pianist.

Morris also states, without evidence, that “[t]he Royals are all circumcised.” This appears to be an attempt to imbue the practice with some kind of regal glamour. But as an author of the present article has recently shown, the “British Royal Family Circumcision Tradition” is actually without factual basis; it is a contemporary myth or legend.⁸⁵

Genital mutilation?

Morris objects to the use of the term ‘mutilation’ to refer to male circumcision, asserting that it has no similarities with FGM, “either anatomically or health-wise.” While we do not endorse the use of this term ourselves, we point out that the World Health Organization recognizes several types of “FGM,” some of which—including the ‘ritual nicking’ of a girl’s clitoral hood⁸⁶—are much less invasive than male circumcision. Nevertheless, they are banned as impermissible mutilations,⁸⁷ on the grounds that they are medically unnecessary and are done without consent.

As for the “health-wise” contention, scientists do not actually know whether some sanitized and/or minimally-invasive form of female genital cutting would reduce the risk of various infections.²⁹ To ask the question is morally repugnant; to answer it would be illegal. Yet in the

case of little boys, advocates of circumcision are quite happy to conduct experiments on the benefits of cutting off parts of the penis. Why is there a double standard here?^{88,89}

Do boys have human rights?

Moving to human rights, Morris states that “there is no opposition to childhood male circumcision in any United Nations document.” He seems to miss the point. Circumcision critics do not claim that UN documents specifically refer to male circumcision as being a violation of human rights. Instead, they suggest that the internal logic of those documents, and the philosophical and legal foundations upon which they are based, entail that circumcision is in conflict with those rights, most notably the right to bodily integrity.^{90,91,92}

The UN Convention on the Rights of the Child does not specifically mention FGM any more than it specifically mentions the circumcision of boys. So we have to reason through the actual language.⁹³ “FGM” is defined to mean any degree of cutting done to the healthy genitals of a female child (including minor forms that do not affect the clitoris, and which are conducted in sterile settings).⁸⁶ If that is the case, however, then what about such cutting on boys?

The philosopher Anders Sandberg has put it this way: “What is really going on is [a] status quo bias ... We are used to [male] circumcision in Western culture, so it is largely accepted. [Policy] is set, not based on actual harms, but ... on a social acceptability scale and who has institutional power. This all makes perfect sense sociologically, but it is bad ethics.”⁹⁴

Morris’s academic publications

In the biography at the end of his *Skeptic* piece, Morris boasts of having 50 “academic publications” on the topic of male circumcision (now about a dozen more).⁹⁵ Less sympathetic commentators have pointed out that many of these publications are “nearly identical in content,”⁹⁶ and that the sheer pace at which they are published makes for a kind of Gish Gallop: “the issuing [of] misstatements faster than they can be checked and refuted.”⁹⁷ Morris does not mention that fully 23 of his ‘academic publications’ are non-peer-reviewed letters to the editor, and that another 10 are simply opinion pieces in popular magazines.^{95,98}

Here is a representative passage from one of those magazine articles, from 2007: “Although foreskin fetishism and paedophilia are the motivating factors for some [people who are opposed to circumcision],” Morris writes, “certain subgroups in the gay community desire the foreskin for

a sexual practise known as ‘docking.’ Their vigorous opposition to circumcision helps ensure a continuous supply of foreskinned males in the community for this source of sexual pleasure for them.”⁹⁸ Note that after dismissing those who are skeptical about circumcision as “foreskin fetishists” and “paedophiles,” Morris then appears to concede that there is at least one sexual role for the foreskin, thus contradicting his earlier arguments. As Morris goes on to state: “Thus we find there *is* a use for the foreskin! Parents take note!”⁹⁸ (emphasis in original). Readers will have to assess for themselves just how ‘academic’ these magazine articles are.

Conclusion

In this paper, we have covered just a few of the distortions, misrepresentations, and inadequately referenced claims in Morris’s hymn of praise to childhood circumcision; and we have assessed just one of Morris’s recent publications. To pile on more examples would lead us away from the central point. The *most* one can say about the medical evidence concerning circumcision is that it is contested and inconclusive. On a global scale, there is a strong balance of opinion among experts in paediatric medicine that the foreskin is not inherently harmful to health, and that the circumcision of infants is entirely unnecessary.^{22,46}

In 2011 alone, nearly a dozen infant boys had to be treated for “life threatening haemorrhage, shock or sepsis” as a result of their non-therapeutic circumcisions at a single children’s hospital in Birmingham.⁹⁹ This information was made public due to a specific freedom of information request, and so would not otherwise have been reported. It is clear, then, that we are seeing only the tip of the iceberg in terms of risks and complications.

Since circumcision does carry risk, therefore—as with any surgical procedure—and since it removes a healthy, and indeed private, part of the body, the individual who must wear the lifelong consequences of the intervention should be the one to make the decision.^{19,26}

Brian Morris has a different view, and he is entitled to express it. But he does not speak on behalf of ‘science.’ As historians of medicine remind us, since the mid-nineteenth century all sorts of dubious theories about the nature of the foreskin (and the “health benefits” of infant circumcision) have been advanced and then later debunked.¹⁰⁰ The appropriate attitude for a skeptic is not to swallow these claims unblinkingly, but rather to approach them with suspicion and subject them to a rigorous critique.

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Robert Darby is an independent scholar with a PhD from the University of New South Wales and is the author of numerous articles on the history and ethics of male and female genital surgeries. His book, *A Surgical Temptation: The Demonization of the Foreskin and the Rise of Circumcision in Britain* (University of Chicago Press, 2005) is recognized as the standard account. His most recent publication is a rebuttal of Morris's claims that "circumcision arose in the Middle East to solve problems caused by sand and dust" and can be accessed here: http://www.circinfo.org/Circumcision_and_sand.html. He lives in Canberra, Australia.

References and notes

¹ Morris, B. (2013). Science supports infant circumcision, so should skeptics. *The Skeptic*, Autumn, 30-33.

² Donovan B. (1999). Book reviews: in favour of circumcision. *Venereology*, 12(2), 68-9. Available at <http://www.historyofcircumcision.net/index.php?option=content&task=view&id=64>. Note that Morris states in a recent e-letter that Donovan "and other senior academic colleagues in Australia have come a long way in the past 15 years and now universally congratulate me for being right about IMC all those years ago" (see http://jme.bmj.com/content/early/2013/08/16/medethics-2013-101614/reply#medethics_el_16791). It is unclear what specifically Morris is referring to. In response to an email from one of the present authors, Donovan stated: "My stance hasn't really changed much [in the past 15 years]," and that if he lived in a developed nation he "probably wouldn't bother" with infant circumcision.

³ Morris, B., & The Gilgal Society (2006). *Circumcision: a guide for parents* [Brochure]. London, England: The Gilgal Society. Available at <http://web.archive.org/web/20110518091524/http://www.circinfo.net/pdfs/GFP-ENAU.pdf>.

⁴ Morris, B., & The Gilgal Society (2007). *Sex and circumcision: what every woman needs to know* [Brochure]. London, England: The Gilgal Society. Available at <http://web.archive.org/web/20110518091029/http://www.circinfo.net/pdfs/GFW-EN.pdf>.

⁵ Hernandez, V. (2013, Dec 16). Author of Aussie study on circumcision linked to Gilgal Society. *International Business Times*. Available at <http://au.ibtimes.com/articles/530298/20131216/author-aussie-study-circumcision-linked-gilgal-society.htm#.UsFdB3n4UZI>.

⁶ Morris B. (2009). Interviewed on the *Sunday Night* television program, May 24. Available at <https://youtube.googleapis.com/v/7yDvL4hNny4>.

⁷ Morris, B. (2014). Personal statement. Available at http://www.circinfo.net/about_the_author_professor_brian_j_morris.html.

⁸ Morris, B. (1999). *In favour of circumcision*. Sydney: University of New South Wales Publishing.

⁹ Morris, B. (2007). Why circumcision is a biomedical imperative for the 21st century. *Bioessays*, 29(11), 1147-1158.

¹⁰ Povenmire, R. (1998). Do parents have the legal authority to consent to the surgical amputation of normal, healthy tissue from their infant children? The practice of circumcision in the United States. *The American University Journal of Gender, Social Policy & the Law*, 7(1), 87. See also, e.g., Sarajlic, E. (2014). Can Culture Justify Infant Circumcision?. *Res Publica*, 20(4), 327-343; Earp, B. D. (2014). Do the benefits of male circumcision outweigh the risks? A critique of the proposed CDC guidelines. *Frontiers in Pediatrics*, in press.

¹¹ Morris, B. J., Bailis, S. A., & Wiswell, T. E. (2014, April). Circumcision rates in the United States: rising or falling? What effect might the new affirmative pediatric policy statement have? In *Mayo Clinic Proceedings*. Elsevier, e-pub ahead of print.

¹² Saunders, R. (2014, April 4). Circumcision has health benefits, but doctors should leave the decision up to parents. *The Daily Beast*. Available at <http://www.thedailybeast.com/articles/2014/04/04/circumcision-has-health-benefits-but-doctors-should-leave-the-decision-up-to-parents.html>. Note that “Russell Saunders” is a professional pseudonym.

¹³ Pringle, K. (2014, April 4). Circumcision health risks and benefits—experts respond. *Science Media Centre*. Available at <http://www.sciencemediacentre.co.nz/2014/04/04/circumcision-health-risks-and-benefits-experts-respond/>. For “absurd” see: <http://www.nzdoctor.co.nz/news/2014/april-2014/03/nz-health-expert-damns-research-calling-for-the-return-of-male-circumcision.aspx>. See also Jenkins, I. (2014, January). Bias and male circumcision. In *Mayo Clinic Proceedings* (Vol. 89, No. 11, p. 1588). Elsevier. The author writes: “As a physician without a strong opinion about male circumcision (MC), I found the article by Morris [et al.] initially convincing, but on closer inspection, it is marred by bias.”

¹⁴ Collier, R. (2011). Circumcision indecision: The ongoing saga of the world’s most popular surgery. *Canadian Medical Association Journal*, 183(17), 1961-1962.

¹⁵ Taylor, J. R., Lockwood, A. P., & Taylor, A. J. (1996). The prepuce: specialized mucosa of the penis and its loss to circumcision. *British Journal of Urology*, 77(2), 291-295.

¹⁶ Werker, P. M., Terng, A. S., & Kon, M. (1998). The prepuce free flap: dissection feasibility study and clinical application of a super-thin new flap. *Plastic and Reconstructive Surgery*, 102(4), 1075-1082.

¹⁷ Kigozi, G., Wawer, M., Ssettuba, A., et al. (2009). Foreskin surface area and HIV acquisition in Rakai, Uganda (size matters). *AIDS (London, England)*, 23(16), 213-2217.

¹⁸ Sorrells, M. L., Snyder, J. L., Reiss, et al. (2007). Fine-touch pressure thresholds in the adult penis. *BJU International*, 99(4), 864-869. Note that this study has been criticized in an e-letter by Morris and Waskett (2007), which has itself been criticized in an e-letter by Young (2007).

These letters can be accessed at <http://onlinelibrary.wiley.com/doi/10.1111/j.1464-410X.2007.06970.6.x/citedby>.

- ¹⁹ Fox, M., & Thomson, M. (2005). A covenant with the status quo? Male circumcision and the new BMA guidance to doctors. *Journal of Medical Ethics*, 31(8), 463-469.
- ²⁰ Malone, P., & Steinbrecher, H. (2007). Medical aspects of male circumcision. *BMJ: British Medical Journal*, 335(7631), 1206-1209.
- ²¹ Golubovic, Z., Milanovic, D., Vukadinovic, V., Rakic, I., & Perovic, S. (1996). The conservative treatment of phimosis in boys. *British Journal of Urology*, 78(5), 786-788.
- ²² Frisch, M., Aigrain, Y., Barauskas, V., et al. (2013). Cultural bias in the AAP's 2012 technical report and policy statement on male circumcision. *Pediatrics*, 131(4), 796-800.
- ²³ Cold, C. J., & Taylor, J. R. (1999). The prepuce. *BJU International*, 83(S1), 34-44.
- ²⁴ Darby, R., & Cox, L. (2008). Objections of a sentimental character: the subjective dimensions of foreskin loss. In: Zabus C. (ed.), *Fearful symmetries: essays and testimonies around excision and circumcision*. Amsterdam and New York: Rodopi.
- ²⁵ Dekkers, W. (2009). Routine (non-religious) neonatal circumcision and bodily integrity: a transatlantic dialogue. *Kennedy Institute of Ethics Journal*, 19(2), 125-146.
- ²⁶ Ungar-Sargon, E. (2013). On the impermissibility of infant male circumcision: a response to Mazor (2013). *Journal of Medical Ethics*, doi:10.1136/medethics-2013-101598.
- ²⁷ Lyons, B. (2013). Male infant circumcision as a 'HIV vaccine'. *Public Health Ethics*, 6(1), 90-103.
- ²⁸ Jagannath, V. A., Fedorowicz, Z., Sud, V., Verma, A. K., & Hajebrahimi, S. (2011). Routine neonatal circumcision for the prevention of urinary tract infections in infancy. *Cochrane Database of Systematic Reviews (Online)*, 11, CD009129-CD009129.
- ²⁹ Benatar, M., & Benatar, D. (2003). Between prophylaxis and child abuse: the ethics of neonatal male circumcision. *American Journal of Bioethics*, 3(2), 35-48.
- ³⁰ Singh-Grewal, D., Macdessi, J., & Craig, J. (2005). Circumcision for the prevention of urinary tract infection in boys: a systematic review of randomised trials and observational studies. *Archives of Disease in Childhood*, 90(8), 853-858.
- ³¹ Chang, S. L., & Shortliffe, L. D. (2006). Pediatric urinary tract infections. *Pediatric Clinics of North America*, 53(3), 379-400.
- ³² Somerville, M. (2000). *The ethical canary: science, society, and the human spirit*. Montreal and Kingston: MacGill-Queen's University Press.
- ³³ Earp, B. D. (2011). Can science tell us what's objectively true? *The New Collection*, 6(1), 1-9.
- ³⁴ Fellows, E. W. (1961). Social and cultural influences in the development of science. *Synthese*, 13(2), 154-172.

-
- ³⁵ Marcus, G. (2013, Nov 7). Science and its skeptics. *The New Yorker*. Available at <http://www.newyorker.com/online/blogs/elements/2013/11/science-and-its-skeptics.html>.
- ³⁶ Richters, J. (2006). Circumcision and the socially imagined sexual body. *Health Sociology Review*, 15(3), 248-257.
- ³⁷ Merwin, T. (2012, September 19). Fleshing out change on circumcision. *The Jewish Week*. Available at <http://www.thejewishweek.com/features/new-york-minute/fleshing-out-change-circumcision>.
- ³⁸ Muller, A. J. (2010). To cut or not to cut? Personal factors influence primary care physicians' position on elective newborn circumcision. *Journal of Men's Health*, 7(3), 227-232.
- ³⁹ Blank, S., Brady, M., Buerk, E., Carlo, W., Diekema, D., Freedman, A., ... & Wegner, S. (2012). Circumcision policy statement. *Pediatrics*, 130(3), 585-586.
- ⁴⁰ Blank, S., Brady, M., Buerk, E., Carlo, W., Diekema, D., Freedman, A., ... & Wegner, S. (2012). Male circumcision. *Pediatrics*, 130(3), e756-e785.
- ⁴¹ Garber, S. T. (2013). *The circular cut: problematizing the longevity of civilization's most aggressively defended amputation*. Unpublished manuscript, Department of Philosophy, Wesleyan University, Middletown, CT, USA.
- ⁴² Svoboda, J. S., & Van Howe, R. S. (2013). Out of step: fatal flaws in the latest AAP policy report on neonatal circumcision. *Journal of Medical Ethics*, 39(7), 434-441.
- ⁴³ Lawson, C. R., (2012). Re: AAP Circumcision Policy Statement and Technical Report. *Pediatrics*. Available at http://pediatrics.aappublications.org/content/130/3/e756.full/reply#pediatrics_el_54322.
- ⁴⁴ Blank, S., Brady, M., Buerk, E., Carlo, W., Diekema, D., Freedman, A., ... & Craig, S. (2013). The AAP Task Force on Neonatal Circumcision: a call for respectful dialogue. *Journal of Medical Ethics*, 39(7), 442-443. See the second line of the second column for "felt."
- ⁴⁵ Royal Dutch Medical Association (KNMG). (2010). Non-therapeutic circumcision of male minors. Available at <http://knmg.artsenet.nl/Publicaties/KNMGpublicatie/Nontherapeutic-circumcision-of-male-minors-2010.htm>.
- ⁴⁶ Hartmann, W. (2012). Expert statement: Dr med. Wolfram Hartmann, President of "Berufsverband der Kinder- und Jugendärzte" for the hearing on the 26th of November 2012 concerning the drafting of a federal government bill. *Berufsverband der Kinder- und Jugendärzte (BVKJ)*. German original available at http://www.kinderaerzte-im-netz.de/bvkj/kinpopup/psfile/pdf/70/121126_Ste50aa5e211e6a6.pdf; English translation available at http://www.intactamerica.org/german_pediatrics_statement.
- ⁴⁷ Cancer Research UK (2014). "Statistics and outlook for penile cancer." *Cancer Research UK*. Available at <http://www.cancerresearchuk.org/cancer-help/type/penile-cancer/treatment/statistics-and-outlook-for-penile-cancer>.
- ⁴⁸ Orsola, A., Caffaratti, J., & Garat, J. M. (2000). Conservative treatment of phimosis in children using a topical steroid. *Urology*, 56(2), 307-310.

-
- ⁴⁹ Circumcision Foundation of Australia. (2012). About the Circumcision Foundation of Australia. Available at www.circumcisionaustralia.org.
- ⁵⁰ Russell Medical Centre. (2013). Trusted Australian circumcision since 1993. Available at <http://www.circumcision.net.au>. According to this site, Dr. Russell and his staff have “have performed over 38,000 circumcisions” since 1993.
- ⁵¹ Sikora, K. (2011, January 21). Circumcision - the unkindest cut of all back in favour. *The Daily Telegraph*. Available at <http://www.dailytelegraph.com.au/news/nsw/unkindest-cut-of-all-back-in-favour/story-e6freuzi-1225991948585>. Dilley charges about \$730 per circumcision, according to parent who has used his services; see <http://www.huggies.com.au/forum/5-toddler/120-your-toddlers-health/2175640-dr-anthony-dilley-circumcision-sydney>.
- ⁵² Morris, B. J., Wodak, A. D., Mindel, A., Schrieber, L., Duggan, K. A., Dilley, A., ... & Leeder, S. R. (2012). Infant male circumcision: an evidence-based policy statement. *Open Journal of Preventive Medicine*, 2, 79-82.
- ⁵³ RACP. (2010). *Circumcision of infant males*. Available at <http://www.racp.edu.au/index.cfm?objectid=7315DC15-D37F-8CFB-1D4E3507F6617DD6>. Emphasis added.
- ⁵⁴ Hardwig, J. (1991). The role of trust in knowledge. *The Journal of Philosophy*, 88(12), 693-708.
- ⁵⁵ Scargle, J. D. (2000). Publication bias: the “file-drawer” problem in scientific inference. *Journal of Scientific Exploration*, 14(1), 91-106.
- ⁵⁶ Smith, R. (2010). Classical peer review: an empty gun. *Breast Cancer Research*, 12(Suppl 4), 1-4.
- ⁵⁷ Ioannidis, J. P. A. (2005). Why most published research findings are false. *PLoS Medicine*, 2(8), e124.
- ⁵⁸ Fergusson, D. M., Boden, J. M., & Horwood, L. J. (2006). Circumcision status and risk of sexually transmitted infection in young adult males: an analysis of a longitudinal birth cohort. *Pediatrics*, 118(5), 1971-1977.
- ⁵⁹ Fergusson, D. M., Boden, J. M., & Horwood, L. J. (2006). Responses to post-publication peer reviews: circumcision and sexually transmitted infection. *Pediatrics*, e-letter. Available at: http://pediatrics.aappublications.org/content/118/5/1971.full/reply#pediatrics_el_4725.
- ⁶⁰ Dickson, N. P., van Roode, T., Herbison, P., Paul, C. (2008). Circumcision and risk of sexually transmitted infections in a birth cohort. *Journal of Pediatrics*, 152, 383-7.
- ⁶¹ Frisch, M. (2012). Author's Response to: Does sexual function survey in Denmark offer any support for male circumcision having an adverse effect? *International Journal of Epidemiology*, 41(1), 312-314.
- ⁶² Kaptchuk, T. J. (2001). The double-blind, randomized, placebo-controlled trial: gold standard or golden calf? *Journal of Clinical Epidemiology*, 54(6), 541-549.

⁶³ Dias, J., Freitas, R., Amorim, R., Espiridião, P., Xambre, L., & Ferraz, L. (2013). Adult circumcision and male sexual health: a retrospective analysis. *Andrologia*, e-pub ahead of print.

⁶⁴ Morris, B. J., & Krieger, J. N. (2013). Does male circumcision affect sexual function, sensitivity, or satisfaction?—a systematic review. *The Journal of Sexual Medicine*, *10*(11), 2644-2657. Note that this review suffers from many of the same problems as Morris's piece in the *Skeptic*. An annotated PDF showing some of the flaws is available here <http://www.circumstitions.com/Docs/morris-2013-ann.pdf>; moreover, as Bossio et al. (2014) state: “ Morris and Krieger do not report the results of this review collapsed across study quality. The conclusion they draw—that circumcision has no impact on sexual functioning, sensitivity, or sexual satisfaction—does not necessarily line up with the information presented in their review, which is mixed. However, it is important to note that their article is a review of the literature and not a meta-analysis, thus, no statistical analyses of the data have been performed; instead, the article presents the authors' interpretation of trends” (see note 69 for the full reference).

⁶⁵ Bronselaer, G. A., Schober, J. M., Meyer-Bahlburg, H. F., T'sjoen, G., Vlietinck, R., & Hoebeke, P. B. (2013). Male circumcision decreases penile sensitivity as measured in a large cohort. *BJU International*, *111*(5), 820-827. Note that this study has been criticized in an e-letter by Morris, Krieger, and Kigozi (2013), which was responded to by Bronselaer (2013). These can be accessed at http://onlinelibrary.wiley.com/doi/10.1111/bju.12128_10/full.

⁶⁶ Fenton, K. A., Johnson, A. M., McManus, S., & Erens, B. (2001). Measuring sexual behaviour: methodological challenges in survey research. *Sexually Transmitted Infections*, *77*(2), 84-92.

⁶⁷ Kigozi, G., Watya, S., Polis, C. B., Buwembo, D., Kiggundu, V., Wawer, M. J., ... & Gray, R. H. (2008). The effect of male circumcision on sexual satisfaction and function, results from a randomized trial of male circumcision for human immunodeficiency virus prevention, Rakai, Uganda. *BJU International*, *101*(1), 65-70.

⁶⁸ Krieger, J. N., Mehta, S. D., Bailey, R. C., Agot, K., Ndinya-Achola, J. O., Parker, C., & Moses, S. (2008). Adult male circumcision: effects on sexual function and sexual satisfaction in Kisumu, Kenya. *The Journal of Sexual Medicine*, *5*(11), 2610-2622.

⁶⁹ Bossio, J. A., Pukall, C. F., & Steele, S. (2014). A Review of the current state of the male circumcision literature. *The Journal of Sexual Medicine*, *11*(12), 2847-2864.

⁷⁰ Tian, Y., Liu, W., Wang, J. Z., Wazir, R., Yue, X., & Wang, K. J. (2013). Effects of circumcision on male sexual functions: a systematic review and meta-analysis. *Asian Journal of Andrology*, *15*(5), 662.

⁷¹ Williamson, M. L., & Williamson, P. S. (1988). Women's preferences for penile circumcision in sexual partners. *Journal of Sex Education & Therapy*, *14*(2), 9-12.

⁷² Bakalar, N. (2013, Aug 22). U.S. circumcision rates are declining. *New York Times*. Available at http://well.blogs.nytimes.com/2013/08/22/u-s-circumcision-rates-are-declining/?_r=0.

⁷³ Bensley, G. A., & Boyle, G. J. (2003). Effects of male circumcision on female arousal and orgasm. *The New Zealand Medical Journal*, *116*(1181), U595.

-
- ⁷⁴ Johnsdotter, S. (2013). Discourses on sexual pleasure after genital modifications: the fallacy of genital determinism (a response to J. Steven Svoboda). *Global Discourse*, 3(2), 256-265.
- ⁷⁵ Hammond, T. (1999). A preliminary poll of men circumcised in infancy or childhood. *BJU International*, 83(S1), 85-92.
- ⁷⁶ Hankins, C. (2007). Male circumcision: implications for women as sexual partners and parents. *Reproductive Health Matters*, 62-67.
- ⁷⁷ Cold, C. J., & McGrath, K. A. (1999). Anatomy and histology of the penile and clitoral prepuce in primates. In *Male and female circumcision* (pp. 19-29). Springer US. Available at <http://www.cirp.org/library/anatomy/cold-mcgrath/>.
- ⁷⁸ Debate.org. (2013). Do females prefer males who have circumcised penises? *Debate.org*. Available at <http://www.debate.org/opinions/do-females-prefer-males-who-have-circumcised-penises>.
- ⁷⁹ Bauer, A. Z., & Kriebel, D. (2013). Prenatal and perinatal analgesic exposure and autism: an ecological link. *Environmental Health*, 12(1), 41.
- ⁸⁰ Zoske, J. (1998). Male circumcision: a gender perspective. *The Journal of Men's Studies*, 6(2), 189-208.
- ⁸¹ Shankar, K. R., & Rickwood, A. M. K. (1999). The incidence of phimosis in boys. *BJU International*, 84, 101-102.
- ⁸² Rickwood, A. M. K. (1999). Medical indications for circumcision. *BJU International*, 83(S1), 45-51.
- ⁸³ Camille, C. J., Kuo, R. L., & Wiener, J. S. (2002). Caring for the uncircumcised penis: what parents (and you) need to know. *Contemporary Pediatrics*, 19(11), 61-73.
- ⁸⁴ Darby, R. (2005). *A surgical temptation: The demonization of the foreskin and the rise of circumcision in Britain*. Chicago: University of Chicago Press.
- ⁸⁵ Darby, R., & Cozijn, J. (2013). The British royal family's circumcision tradition. *SAGE Open*, 3(4), 1-10. Available at <http://sgo.sagepub.com/content/3/4/2158244013508960.full>.
- ⁸⁶ World Health Organization. (2013). *Female genital mutilation*. Available at <http://www.who.int/mediacentre/factsheets/fs241/en/>.
- ⁸⁷ Davis, D. S. (2003). Cultural bias in responses to male and female genital surgeries. *The American Journal of Bioethics*, 3(2), W5.
- ⁸⁸ Johnson, M. (2010). Male genital mutilation: beyond the tolerable?. *Ethnicities*, 10(2), 181-207.
- ⁸⁹ Earp, B. D. (2014). Female genital mutilation (FGM) and male circumcision: Should there be a separate ethical discourse? Working paper. Available at https://www.academia.edu/8817976/Female_genital_mutilation_FGM_and_male_circumcision

[Should there be a separate ethical discourse](#). See also Earp, B. D. (2013). The ethics of infant male circumcision. *Journal of Medical Ethics*, 39(7), 418-420.

⁹⁰ Svoboda, J. S. (2013). Circumcision of male infants as a human rights violation. *Journal of Medical Ethics*, 39(7), 469-474.

⁹¹ Cruz, R., Glick, L. B., & Travis, J. W. (2003). Circumcision as human-rights violation: assessing Benatar and Benatar. *The American Journal of Bioethics*, 3(2), W7.

⁹² Merkel, R., & Putzke, H. (2013). After Cologne: male circumcision and the law. Parental right, religious liberty or criminal assault? *Journal of Medical Ethics*, 39(7), 444-449.

⁹³ DeLaet, D. L. (2009). Framing male circumcision as a human rights issue? Contributions to the debate over the universality of human rights. *Journal of Human Rights*, 8(4), 405-426. Note, however, that the UN Committee on the Rights of the Child has in fact issued a statement about ritual male circumcision in its concluding observations about Israel in July 2013. In paragraphs 41 and 42 on p. 10 in the section 'Violence against Children' under the paragraph heading 'Harmful Practices,' the committee expressed "... concern about reported short and long-term complications arising from some traditional male circumcision practices." The report may be seen at this link: <http://www2.ohchr.org/english/bodies/crc/docs/co/CRC-C-ISR-CO-2-4.pdf>.

⁹⁴ Quoted in Earp (forthcoming). Assessing a religious practice from secular-ethical grounds: Competing meta-ethics in the circumcision debate, and a note about respect. Under review. Prepublication draft available at https://www.academia.edu/5790352/Assessing_a_religious_practice_from_secular-ethical_grounds_Competing_meta-ethics_in_the_circumcision_debate_and_a_note_about_respect

⁹⁵ Morris, B. (2014). Publications by Brian J. Morris, Professor Emeritus, School of Medical Sciences, Sydney Medical School, University of Sydney, on the topic of circumcision. Available at http://www.circinfo.net/pdfs/Circumcision_Pubs_Morris_2013.pdf.

⁹⁶ Svoboda, J. S. & Van Howe, R. S. (2014). Circumcision: a bioethical challenge. *Journal of Medical Ethics*, e-letter. Available at http://jme.bmj.com/content/early/2013/08/16/medethics-2013-101614/reply#medethics_el_16775.

⁹⁷ Circumstitions (2014). "Brian Morris." Available at <http://www.circumstitions.com/morris.html>.

⁹⁸ Morris, B. (2007). Circumcision facts trump anti-circ fiction. *The Skeptic*, Summer, 52-56. Available at <http://www.circinfo.net/pdfs/MorrisSkepticCirc07.pdf>.

⁹⁹ Checketts, R. (2012). Response to freedom of information request, FOI/0742. Birmingham Children's Hospital, NHS Foundation Trust. Available at <http://www.secularism.org.uk/uploads/foi-bch-response-received-260612.pdf>. Please note that 11 was the highest number of life-threatening incidents reported at the hospital between 2002 and 2011: there were 6 such incidents in 2010; 2 in the years 2002, 2008, and 2009; 1 in 2007; and 0 from 2003 to 2006. Thanks are due to Stephen Moreton for pointing out the importance of giving the full range of data points from this freedom of information request. We would simply note

that even 1 life-threatening event per year due to a medically unnecessary surgery – much less at a single hospital facility in one city – is a matter for serious concern: first, it does not account for the number of such events occurring at other hospital facilities (this figure is not known); and, second, the appropriate tolerance for such risk should be close to zero, given the non-therapeutic nature of the procedure, and the fact that informed consent from the affected individual cannot be obtained.

¹⁰⁰ Gollaher, D. L. (1994). From ritual to science: the medical transformation of circumcision in America. *Journal of Social History*, 28(1), 5-36.