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Abigail Melia Miller March 27, 2024

The Mystery of the Missing Foreskin:

Investigation and Interventions Regarding Infant Male Circumcision in the United States

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Abstract

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Over the last several decades, medical research has failed to prove that routine infant circumcision provides American males with significant medical benefits, leading bioethicists to question whether its continuation is appropriate. Despite these philosophical discussions, little work has been done to understand and address the fact that parents in the United States continue to circumcise their sons at rates that far exceed those of other similar countries. In order to conceptualize how to advocate for more mindful and ethical practices going forward, this thesis investigates what factors lead American parents to continue to choose circumcision at such high rates. To answer this question, I present an original research study in which parents of young boys were surveyed and interviewed to assess their knowledge, experiences, and decision-making processes regarding the procedure. The study is the first in its field to use a wide and large sample of American parents, include both quantitative and qualitative data, and statistically test what other variables correlate with parents' decisions. These attributes allowed the study to reveal the roles of societal factors such as social surroundings and insurance policy in parents' decision-making. By mapping the data onto social norm theory, I conclude that in the United States, infant circumcision is perpetuated by a combination of medical misinformation, social pressure (otherwise referred to as normative expectations), and inertia. After substantiating these findings, in the spirit of libertarian paternalism, I use social norm theory to suggest interventions that can improve our practices regarding circumcision decision-making going forward.

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Chapter 1: Introduction

In today's day and age, countless medical interventions are practiced without medical necessity—botox, braces, nose jobs, liposuctions, and laser hair removal, just to name a few. These common cosmetic procedures, which aim to embody society's aesthetic preferences, are referred to as "normalizing" technologies.[1] But one such normalizing procedure stands out as a curious case: First, many people report choosing to have the procedure performed on their children for reasons of conformity, despite the fact that hardly anyone else will be able to see whether or not someone had it done;[2] second, many Americans believes that the procedure has health benefits, though science does not support this;[3] lastly, though it's illegal to perform any analogous procedures on female infants, it's been performed on about 70% of American males—in most cases, within just hours or days of their birth.[4]

Given the well-established ethical concerns relating to routine infant circumcision, this paper aims to assess what factors influence American parents to choose circumcision at rates that far exceed those of other similar countries—and in turn, what we can do to elicit positive change.

In order to highlight the importance of this question, this introductory chapter provides necessary background information about the history, medical research, and ethical discussions surrounding the topic. This chapter also summarizes the past studies that have attempted to answer this question, explaining both their findings and their flaws. The second chapter shares the methodology and results of my survey, which analyzed parents' knowledge, experiences, and decision-making processes surrounding infant circumcision. It includes both descriptive and

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[1] Gupta, "Medical Entanglement."
[2] Rediger and Muller, "Parents' Rationale for Male Circumcision."
[3] Earp, Sardi, and Jellison, "False Beliefs Predict Increased Circumcision Satisfaction."
[4] Morris et al., "Country-Specific and Global Prevalence";
"Circumcision | Boston Children's Hospital";

correlational data to begin to address the research question. The third chapter discusses the follow-up interviews which built on the survey data by adding context to the correlations, and providing more details about parents' personal experiences regarding the decision. In the fourth chapter I use social norm theory to draw conclusions about how the data answers the research question, and what can be done to encourage more ethical practices surrounding the decision going forward.

From here on out, unless explicitly stated as otherwise, the word "circumcision" refers only to *non-therapeutic* (not prescribed due to a medical condition), *non-religious* circumcision performed on *infants* in the *United States*. Religious circumcision is outside the scope of this thesis.

History

The practice of male circumcision, or removal of the foreskin from the head of the penis, is believed to date as far back as Old Kingdom Ancient Egypt (2,300 BCE). Over the following millenia, the practice acquired ritualistic value in cultures ranging from Judaism and Islam to tribal Polynesia and Australia.[5]

In the United States, circumcision was popularized in the 1870s, after a few prominent pediatricians reported that it helped cure paralysis in young boys who suffered from phimosis (a rare medical condition in which the foreskin becomes stuck over the head of the penis).[6] While it is true that circumcision is an effective cure for phimosis, the reports soon blew out of proportion;

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[5] Doyle, "Ritual Male Circumcision."

[6] Gollaher, "From Ritual to Science: The Medical Transformation of Circumcision in America," 17.
Those who have read John Cleese's book *So, Anyway…* may recall that phimosis is the condition for which Cleese was treated with a circumcision in childhood. He explains that the procedure was rather traumatic for him, which gave him an early appreciation for the importance of medical informed consent.

doctors across the country began labeling circumcision as a "miracle cure" for illnesses ranging from nervous system disorders to metabolic troubles, including both constipation and diarrhea.[7]

Before long, the procedure became a routine practice to maintain both physical hygiene and "moral hygiene"; many doctors asserted that being circumcised would prevent boys from masturbating, which was believed to be not only deeply dangerous, but a near-criminal sin, and the cause of clinical insanity.[8] The book "All About the Baby," published in 1896, perfectly exemplified this mindset in saying that they recommended circumcision in order to save boys from acquiring "the vile habit of masturbation."[9] Accordingly, by 1900 the procedure was not only standard practice among upper and middle class Americans, but it acted as a social signal to indicate families' wealth, prosperity, and good parenting skills.[10] Those parents who chose not to circumcise their sons were accused of being "criminally negligent."[11] Logically, this fraught history led circumcision to seep deep into American culture, where rates remain unusually high despite the fact that these stories are long forgotten.

Prevalence

Today, about 70% of American males are circumcised.[12] About 65% of newborns are getting circumcised, though these rates vary drastically between states, with estimates ranging

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[7] Gollaher., 19.
[8] Gollaher., 20-21;
Darby, "The Masturbation Taboo and Circumcision."
Kinnicutt, " Insanity in Children, Induced by Masturbation."
[9] Tooker, *All about the Baby and Preparations for Its Advent,* 304
as seen in Gollaher, 21.
[10] Calnan, Douglas, and Goldstein, "Tonsillectomy and Circumcision";
Gollaher, 24, 28.
[11] Dye and Smith, "Mother Love and Infant Death."
as seen in Gollaher, 23.
[12] Morris et al., "Country-Specific and Global Prevalence";
"Circumcision | Boston Children's Hospital";

from 10% in Washington and Nevada, to 91% in West Virginia.[13] Though some states still maintain these high rates, the overall average represents a significant shift from the mid 20th century, in which almost all middle and upper class newborn males were circumcised at birth.[14] However, the average rate is still far higher than it is in other comparable countries (developed, non-religious nations with strong health care systems). For example, Canada and the United Kingdom have rates of about 30% and 20% respectively, and some developed countries hardly practice circumcision at all—in Italy and Ireland, for example, the rates are about 2.6% and 0.9% respectively.[15]

Anatomy

Foreskin, medically known as the "prepuce," is the retractable sleeve of skin which naturally covers both the head of a penis in males, as well as the external tip of the clitoris in females.[16] There's no clear line of demarcation between the foreskin and the rest of the skin on the shaft of the penis. This means that there's no set amount of skin that gets removed during a circumcision procedure—the amount that's removed can vary depending on where and by whom the procedure is performed.[17] Regardless, as a boy grows, so will the surface area of his skin. Sometimes the new skin naturally ends up growing back to a length that can retract, leading parents and pediatricians to give their boys circumcision "revision" procedures a few years after their initial procedures.[18]

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[13] Ibid.,
"Circumcision Rate by State 2023," Wisevoter;
"Circumcision Rates by State 2024."
[14] Gollaher, 28.
[15] Morris et al., "Estimation of Country-Specific and Global Prevalence," 4-5.
[16] Cold and Taylor, "The Prepuce."
[17] Earp, "In Defence of Genital Autonomy";
Omole, Smith, and Carter-Wicker, "Newborn Circumcision Techniques."
[18] Kokorowski et al., "Trends in Revision Circumcision at Pediatric Hospitals."

Despite the lack of clear visual differentiation from other penile skin, foreskin does have some unique properties.[19] First, research suggests that the foreskin contains some of the most touch-sensitive parts of the penis, and that having foreskin may also help maintain sensitivity of the glans beneath it.[20] On average, the skin that's removed makes up "30 to 50 square centimeters of erogenous tissue in the average adult organ," contains more than 3 feet of veins, arteries, and capillaries, and has about 20,000 nerve endings.[21] Additionally, it contains all of the mucosal tissue that's intended to provide natural lubrication during sexual arousal.[22] The foreskin also contains the "ridged band"—a heavily innervated area connecting the motile skin to the head of the penis.[23] In short, the foreskin is made up of sensitive tissue that has a unique purpose in sexual functioning.

Medical Benefits

Despite the significant anatomical functions of foreskin, there is evidence to suggest that its removal can have significant medical benefits under certain circumstances. The most well-researched of these potential benefits include decreased rates of HIV and HPV, decreased rates of penile cancer, and decreased rates of urinary tract infections.

Randomized studies have shown that in countries with high rates of HIV/AIDs infections such as Kenya and Uganda, circumcised men are 48% to 60% less likely to become infected.[24] However, it's important to note that people in these countries often have limited access to condoms

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[19] Paraboschi and Garriboli, "Functions of the Prepuce";
[20] Sorrells et al., "Fine-Touch Pressure Thresholds in the Adult Penis."
[21] Earp, "Cultural Bias in American Medicine," 16;
Fleiss, "The Case against Circumcision";
Kigozi et al., "Foreskin Surface Area."
Lang, "Circumcision, Sexual Dysfunction and the Child's Best Interests," 429;
[22] Taylor Lockwood, and Taylor, "The Prepuce: Specialized Mucosa."
[23] Cold and Taylor, "The Prepuce";
Taylor "The Forgotten Foreskin and Its Ridged Band."
[24] World Health Organization and UNAIDS, "Male Circumcision: Global Trends," 22.

or preexposure prophylaxis medication. These resources are widely available in the United States, and are much more effective tools in preventing HIV acquisition.[25] As such, though the World Health Organization and UNAIDS (the United Nations' AIDS team) hope to increase circumcision rates among sexually active men in sub-Saharan Africa, they do not share any such recommendations for children in the United States.[26]

Some studies have suggested that circumcised men may have a reduced prevalence of genital HPV, which can cause forms of cancer in women. Notably, though, there is no clear evidence that circumcision is associated with "decreased HPV acquisition, increased HPV clearance, or decreased the prevalence of genital warts."[27] Regardless, in 2011 "the United States adopted a gender neutral routine HPV immunization policy," the early effects of which have "exceeded expectations."[28] With efficacy rates "close to 100%," vaccination proves to be a far superior combattant of HPV than male circumcision.[29]

Research has also shown that penile cancer occurs almost exclusively in men with foreskin. However, this correlation is believed to be a result of phimosis—a rare condition in which the foreskin becomes "stuck" to the head of the penis.[30] Fortunately, phimosis can be prevented through proper washing, and can be treated with circumcision on an as-needed basis in order to prevent any further complications. Additionally, the average age of diagnosis for penile cancer is 68 years old, and it's one of the rarest forms of cancer—"It's diagnosed in fewer than one man in 100,000 each year and accounts for fewer than 1% of cancers in men in the United States."[31] Thus,

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[25] "HIV/AIDS - Symptoms and Causes." Mayo Clinic.
[26] World Health Organization and UNAIDS, 29.
[27] Zhu et al., "Relationship between Circumcision and Human Papillomavirus Infection."
[28] Markowitz et al., "Ten Years of Human Papillomavirus Vaccination."
[29] "HPV Vaccine | CDC."
[30] Larke et al., "Male Circumcision and Penile Cancer."
[31] "Key Statistics for Penile Cancer";
"Risk Factors for Penile Cancer."

circumcising American infants on the grounds of preventing penile cancer is not logically or statistically sound.

In 1971 and 1975, the American Academy of Pediatrics (AAP) announced that "there were no medical grounds for routine infant circumcision."[32] However, in 2012, the AAP released a new policy report in which they generally recommended neonatal circumcision, primarily due to its correlations with lowered rates of urinary tract infections (UTIs).[33] It should be known, however, that this report expired without ever being renewed. This is likely due to heavy academic criticism which pointed out the report's misrepresentation of circumcison's risks and benefits. For example, critics highlight that the AAP admits to being unable to measure the risks of circumcision, and that 100 boys would need to be circumcised in order to prevent a single urinary tract infection.[34] Additionally, UTIs are very easily and effectively treated with antibiotics—as is done for the majority of women in the country, who experience UTIs at rates that are 30 times those of their male counterparts.[35] Therefore, while UTIs are a statistically significant correlate of circumcision, this does not lead circumcised boys to have better overall health outcomes, at least in the United States.

In summary, though circumcision does have statistically significant correlations with certain health conditions, in the United states these conditions can all be treated or prevented through less invasive, and often more effective means. Therefore, in the vast majority of circumstances, being circumcised does not lead to improved health outcomes for American males.

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[32] Gollaher, 73.
[33] American Academy of Pediatrics Task Force on Circumcision, "Male Circumcision."
[34] Ibid.;
Darby, "Risks, Benefits, Complications and Harms";
Earp, "Cultural Bias in American Medicine," 9;
Frisch et al., "Cultural Bias in the AAP."
[35] "Urinary Tract Infections | Office on Women's Health."

Medical Risks

Though the procedure is usually quick and safe, circumcision does come with some risks. Serious complications including excessive bleeding and wound infections may arise between two and four percent of the time—though this rate varies depending on the time, setting, and method in which the circumcision is performed.[36] Additionally, some studies have shown that some circumcised men report decreased sexual pleasure, as well as increased pain with erections, sex, and masturbation, due to the removal of a substantial amount of skin, including very sensitive tissue and mucosal glands.[37] This correlation with increased pain is not a surprise, given the fact that one of the primary incentives for popularizing circumcision in United States was to "'guard the penis against improper manipulation' and keep the organ sufficiently sore 'to render erection painful.'"[38]

Of course, measuring pain and decreases in pleasure as a result of neonatal circumcision is extremely difficult. Since it's impossible to measure these items on an infant, the only ways to assess the topic are by comparing adults who were and were not circumcised in infancy, or by circumcising adults, and asking them to compare their experiences from before and after the procedure. This creates great room for error: Those who were circumcised in infancy have never had sexual experiences in which they were intact, and those who are intact have never had sexual experiences in which they were circumcised. Therefore, there is nothing for either group to

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[36] Iacob, Feinn, and Sardi, "Systematic Review of Complications."
Krill, Palmer, and Palmer, "Complications of Circumcision."
Shabanzadeh et al., "Male Circumcision Complications."
Weiss et al., "Complications of Circumcision."

[37] Bronselaer et al., "Male Circumcision Decreases Penile Sensitivity";
Frisch, Lindholm, and Gronbaek, "Male Circumcision and Sexual Function";
Kim and Pang, "The Effect of Male Circumcision on Sexuality";
Lang, "Circumcision, Sexual Dysfunction and the Child's Best Interests."

[38] Hall, "Forbidden by God."
as seen in Darby, "The Masturbation Taboo," 746.

compare their experiences to. On the other hand, those who were circumcised in adulthood must have done so for a reason—whether it be to protect themselves from a high-HIV environment, to fulfill a religious commitment, to conform to the norm in their society, or simply because they prefer the look. Regardless of their reason, they will be inherently biased to believe that their experiences are better now that they are circumcised, because they pursued the procedure as a result of their own preferences and desire to have it performed. In essence, any possible methodology for studying this topic involves great risk of error.

Accordingly, it's no surprise that different studies have yielded very different results, depending on where they took place, when and why the participants were circumcised, and what metrics were used to assess the participants' levels of pain and pleasure.[39] Therefore, the extent to which infant circumcision may limit sexual pleasure or increase sexual pain is still heavily contested. Nevertheless, based on the history, anatomical facts, and results of studies that have attempted to minimize pro-circumcision bias, it seems that circumcision *can* cause sexual

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[39] Brito et al., "Sexual Pleasure and Function."
This study showed that men in the Dominican Republic, who volunteered to get circumcised as an HIV prevention measure, generally reported increased satisfaction within the 24 months after the procedure.
Bronselaer et al., "Male Circumcision Decreases Penile Sensitivity."
This study of men in Belgium also showed that circumcision was correlated with decreases in sexual pleasure and functioning.
Kim and Pang, "The Effect of Male Circumcision on Sexuality."
This study of men in Korea showed that circumcision was much more likely to cause sexual and masturbatory pain and difficulty, than pleasure and ease.
Morris and Krieger, "The Contrasting Evidence on Sexual Function."
I would be remiss if I didn't mention this study, which compared and assessed the many previous studies on this topic. However, it's important to note that one of the authors is the co-inventor of a circumcision device, and that both authors have worked tirelessly to promote circumcision for many years. Accordingly, it's no surprise that in this piece they largely dismiss any evidence of adverse effects, and fail to adequately criticize any methodological flaws in studies that show no adverse effects. The authors thus conclude that there is insufficient evidence of adverse physical effects of circumcision, though this conclusion is based on unscientific extrapolation of results from studies with very particular samples and conditions that do not mirror that of the United States, Australia, or other similar countries.
It should also be known that Morriss often uses his pieces to insult those whose opinions, experiences, and data contradict his views. For example, in one of his research analyses, he explains the existence of survey results that contradict his views by stating that "the pervasive nature of online anti-circumcision propaganda might sow false beliefs in gullible or vulnerable men." See source below.
Morris et al., "Critical Evaluation of Psychological Effects."

difficulties, at least in some people or under some circumstances.[40] Some pro-circumcision scholars even cite these sexual difficulties as a valid reason for parents to choose circumcision. For example, in his piece arguing for the permissibility of infant circumcision, British philosopher and science scholar Joseph Mazor says, "It does not seem to me unreasonable to believe that a moderate reduction in sexual pleasure would lead to behavioural changes (eg, less emphasis on sexual pursuits relative to other pursuits) and that some parents could reasonably see these behavioural changes as beneficial."[41]

Existing Philosophical Scholarship

Since the procedure is not medically necessary, potentially harmful, is conducted on people who cannot consent (infants), interferes with very intimate body parts and functions, and was popularized based on false information and intentions to limit sexual pleasure, many scholars consider infant circumcision to violate the principles of bioethics.[42] Hence, most other wealthy countries no longer practice it routinely, and some have made it illegal.[43] One of the most widely-published bioethicists in the field, Brian Earp, highlights biases in the current medical research on the topic and discusses the ethical dangers of the perpetuation of the procedure. He makes compelling comparisons such as pointing out that in America it is illegal to perform any genital alteration on female infants, even in ways that are less invasive than our typical male

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[40] Bronselaer et al., "Male Circumcision Decreases Penile Sensitivity";
Frisch, Lindholm, and Gronbaek, "Male Circumcision and Sexual Function";
Kim and Pang, "The Effect of Male Circumcision on Sexuality";
Lang, "Circumcision, Sexual Dysfunction and the Child's Best Interests."

[41] Mazor, "The Child's Interests," 424.

[42] Darby and Svoboda, "A Rose by Any Other Name";
Lang, "Circumcision, Sexual Dysfunction and the Child's Best Interests";
Schultheiss, "The Ethics of Non-Therapeutic Neonatal Male Circumcision."
Ungar-Sargon, "On the Impermissibility of Infant Male Circumcision."

[43] Svoboda, Adler, and Van Howe, "Circumcision Is Unethical and Unlawful."

circumcisions.[44] He also points out an ethically-questionable bias in our language regarding the topic. He writes,

> All normally developing boys are born with a foreskin, and most boys and men around the world do not have a surgically modified penis. Despite this, the term 'uncircumcised' frames circumcision as the default status, and recasts the natural penis as the linguistically marked category. For a point of comparison, the AAP does not refer to infant girls' vulvae as "unlabiaplastied."[45]

Hence, as per the suggestion of Earp and other circumcision scholars, the rest of this paper will use the word "intact" rather than "uncircumcised," in an attempt to combat ethically-questionable pro-circumcision bias.[46] The importance of this linguistic change is discussed further in the chapter 4 section called "Change the Language."

In addition to the the ethical points described above, scholars such as ethics philosopher David Lang discuss logical flaws in the practice of routine neonatal circumcision; Lang points out that despite the correlations with STDs, UTIs, and penile cancer, "it would seem more pertinent to pre-emptively amputate all tonsils and appendixes," as they are "far more prone to illness than a prepuce that has been treated with customary hygienic measures (ie, regular washing)."[47]

Principlist Analysis

For the purposes of this thesis, I will assess the ethics of infant circumcision through the bioethical framework of principlism. Principlism, which aims to assess moral decision-making in

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[44] Earp, "Female Genital Mutilation and Male Circumcision";
Earp, "In Defence of Genital Autonomy";
Earp, Sardi, and Jellison, "False Beliefs."

[45] Earp, "Cultural Bias in American Medicine." 14.

[46] I personally feel that the word "intact" is a bit insulting to men who are circumcised (as if to imply that they are damaged). But alas, this is the word that was established long before my time, and I believe in the cause if not its name, so I will endorse it
Bollinger, "The Penis-Care Information Gap: Preventing Improper Care of Intact Boys";
Bossio, Pukall, and Steele, "Examining Penile Sensitivity in Neonatally Circumcised and Intact Men";
Kennedy and Sardi, "The Male Anti-Circumcision Movement."

[47] Lang, "Circumcision, Sexual Dysfunction."

the modern healthcare landscape, is among the most common bioethical frameworks used today—it's "the mainstream system of ethics taught in medical undergraduate syllabuses, and is used as a reference point by many in the field."[48] The framework's creators (philosophers Tom Beauchamp and James Childres) first outlined the concept in their 1979 best-selling book *Principles of Biomedical Ethics*, which discussed canon ethical frameworks such as Aristotle's virtue ethics and Kant's utilitarianism, and then offered principlism as a more concrete, nuanced, and relevant structure for current medical discussions.[49]

Principlism relies on four key principles: nonmaleficence, beneficence, autonomy, and justice. As a quick introduction, **nonmaleficence** refers to abstaining from causing harm to other persons;[50] **beneficence** refers to "benefitting or promoting the well-being of other persons;"[51] **justice** refers to equalizing the distribution of benefits and burdens among groups of people;[52] and **autonomy** refers to respecting one's ability to make decisions for themselves, which requires A) intentionality, B) understanding, and C) non-control (a lack of coercion from outside forces).[53] I will now assess the practice of infant circumcision through the lenses of nonmaleficence, beneficence, and autonomy. While justice may also be relevant to this topic in that American society has historically placed differential burdens on certain identity groups in regards to infant circumcision, exploring that nuance is beyond the scope of this thesis.[54]

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[48] Saad, "The History of Autonomy in Medicine."
[49] Beauchamp and Childress, *Principles of Biomedical Ethics*.
[50] Beauchamp and Childress, 155.
[51] Beauchamp and Childress, 217-218.
[52] Beauchamp and Childress, 267.
[53] Beauchamp and Childress, 102.
[54] Calnan, Douglas, and Goldstein, "Tonsillectomy and Circumcision."
Based on Calnan's piece, Gollaher writes, "As white middle-class gentiles adopted circumcision, those left behind were mainly recent immigrants, African Americans, the poor, and others at the margins of respectable society" (24).

Nonmaleficence

Applying the principle of nonmaleficence to the topic of infant circumcision is rather simple. As Beachamp and Childress state, "The principle of nonmaleficence obligates us to abstain from causing harm to others. In medical ethics this principle has often been treated as effectively identical to the celebrated maxim Primum non nocere: 'Above all [or first] do no harm.'"[55] In the most simple sense, infant circumcision causes harm because it causes pain. Of course, many medical procedures cause some level of pain or discomfort, yet are still recommended because they are likely to *decrease* pain and suffering in the long run. Such procedures would not violate the principle of nonmaleficence, because their goal is to decrease suffering on a larger scale. In contrast, circumcision causes pain and discomfort without strong prospects of improving people's health in the long run. While many medical practitioners now make use of pain reduction technology such as medication or local anesthetic injections, the procedure still involves a multi-day healing process, which can be a rather traumatic undertaking for a newborn baby.[56] Additionally, some evidence has shown that the pain medications themselves can be harmful to infants.[57] Lastly, between two and four percent of infant and childhood circumcisions result in dangerous complications, such as wound infections and excessive bleeding.[58]

Beyond violating the principle of nonmaleficence through the causation of acute pain and suffering, circumcision may also violate the principle of nonmaleficence through its potential to cause long-lasting physical damage. As stated previously, research has shown that under

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[55] Beauchamp and Childress, 155.
[56] Bollinger and Van Howe, "Alexithymia and Circumcision Trauma";
Boyle et al., "Circumcision of Healthy Boys: Criminal Assault?";
"Circumcision in Infants: What to Expect at Home";
Rossi, Buonocore, and Bellieni. "Management of Pain in Newborn Circumcision."
[57] Bauer and Kriebel, "Prenatal and Perinatal Analgesic Exposure";
Howard, Weitzman, and Howard, "Acetaminophen Analgesia in Neonatal Circumcision."
[58] Iacob, "Systematic Review of Complications";
Shabanzadeh et al., "Male Circumcision Complications": 25–34.

circumstances in which men are not biased to favor circumcision, circumcised men sometimes report increased pain and abnormalities with sex.[59] Not only can the procedure cause long-term harm for those who are subjected to it, but some research has also suggested that the sexual partners of circumcised men experience increased dyspareunia (pain from sex), likely as a result of increased friction from a lack of mobile skin and lubrication.[60]

To summarize, while it is true that *many* medical procedures can cause pain and other suboptimal side effects, circumcision is unique in that it does not have any significant benefits. Therefore, unlike most other common medical procedures, circumcision causes *unnecessary* suffering without the prospect of decreased suffering in the long run, thus violating the principle of nonmaleficence.

Beneficence

Beneficence is defined as "benefitting or promoting the well-being of other persons."[61] Similarly to the nonmaleficence, most common medical procedures are supported by this principle in that they aim to help people in the long run. As discussed previously, circumcision *can* have some health benefits under certain circumstances, but in the United States, all of circumcision's proposed health benefits (decreased rates of penile cancer, HIV, HPV, and UTIs) are otherwise attainable through less invasive means (such as proper washing, vaccines, and use of condoms). Additionally, penile cancer and male UTIs are extremely rare to begin with, so in the vast majority of instances, circumcision would not be preventing them anyway. Accordingly, there is not sufficient medical benefit to warrant conducting the procedure as a cautionary measure.

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[59] Bronselaer et al., "Male Circumcision Decreases Penile Sensitivity";
Kim and Pang, "The Effect of Male Circumcision on Sexuality";
Lang, "Circumcision, Sexual Dysfunction."
[60] Frisch, Lindholm, and Gronbaek, "Male Circumcision and Sexual Function in Men and Women."
[61] Beauchamp and Childress, 217-218.

Some parents report that they circumcise their children not for *medical* benefits, but for *social* benefits—for example, for the boy to "fit in" with peers and other men in his family.[62] Based on the high prevalence and fraught social history of circumcision in America, it's understandable why parents might feel that the procedure could provide their son with these social benefits. However, research by Brian Earp and Lauren Sardi has provided evidence against this.[63] Their study assessed participants' satisfaction with their circumcision status by asking the following three questions: "How satisfied/dissatisfied are you with your circumcision status?" "'How much is your circumcision status a positive/negative issue for you in your everyday life?" and "'How positively/negatively does your circumcision status affect your sexual experience?" The results showed that circumcised and intact men are about equally satisfied with their circumcision status, though they were more likely to favor circumcision if they held false beliefs about the practice's history and medical effects. Therefore, it does not appear to be true that intact boys will have significant negative social experiences due to their circumcision status, as this would have been reflected in the data. Hence, based on the most current research, circumcision can not be considered significantly "beneficent" for either medical or social / interpersonal reasons.

Autonomy: Proxy Decision-Making

The next principle of Beauchamp and Childress' framework is autonomy. The goal of autonomy is to respect people's right to make their own choices. Of course, some people such as babies or those in comas are not able to make decisions on their own, and thus must have *all* of their medical decisions made for them by someone else. For example, in addition to deciding whether or not to circumcise their sons, parents must also decide what food to feed them, whether

[62] Rediger and Muller.
[63] Earp, Sardi, and Jellison.

or not to vaccinate them, and whether or not to provide them with a life-saving surgery, should such a necessity arise. This concept of making decisions for a non-autonomous person is called surrogate (or proxy) decision-making. While some may argue that the necessity of surrogate decision-making in the context of infant circumcision renders the principle of autonomy irrelevant to the conversation, Beauchamp and Childress believe otherwise. They teach that "the principle of respect for autonomy requires more than noninterference in others' personal affairs… it includes building up or maintaining others' capacities for autonomous choice."[64] Hence, acting as a surrogate decision-maker (i.e., being a parent) does not exempt us from the obligation to consider autonomy; we must still attempt to act in a way that exhibits non-interference when it is safe to do so, thus maintaining our children's capacity for autonomous choice in the future.

Still, it is understandable that some parents may have concerns about delaying this decision on the grounds of non-interference. Luckily, some other bioethical frameworks have also been proposed to assist us in surrogate decision-making when it is unclear whether the principle of autonomy is sufficient. In general, the goals of such frameworks are to A) "make the decision that the patient would have made if he or she were able to make decisions," B) do what's in the person's "best interest," and/or C) "[focus] on each patient's dignity and individuality rather than his or her autonomy."[65] Notably, though, in order for a surrogate decision-maker to even be necessary, it must be the case that the decision cannot be postponed until the person is able to decide for himself.

In terms of point A, less than one in 1,000 adult men choose to get circumcised in the United States, and most of those who do are motivated by medical abnormalities such as phimosis.[66] Therefore, it is unlikely that giving a boy a circumcision is what he would have

[64] Beauchamp and Childress, 104.
[65] Torke, Alexander, and Lantos, "Substituted Judgment: The Limitations of Autonomy,"1514.
[66] Nabavizadeh et al., "Incidence of Circumcision among Insured Adults."

decided for himself when he is old enough to do so. For B, as established in the sections on beneficence and nonmaleficence, there is not sufficient evidence that getting circumcised is in most people's "best interest" in the United States; it has no clear medical or social benefits, and it may cause sexual pain and difficulties in the future. As for C, I would argue that circumcision does disrespect a person's dignity, due to the fact that it permanently alters the appearance and functioning of their genitals—a highly intimate body part with an important role in intimate relationships. Though some people may prefer the look and functioning of a circumcised penis, surely some people do not. Thus, it does not seem appropriate to make this permanent, intimate decision on someone else's behalf, without any indication of what their personal preferences will be. As for the point about urgency, the answer is clear; it is fully possible for someone to get circumcised in adulthood if they so choose, and recovery is relatively quick and easy.[67] In short, the alternative proxy decision-making frameworks do not call us to choose circumcision. This leads us to refer back to the principle of autonomy, which suggests non-interference.

Autonomy: Informed Consent

In addition to considering the autonomy, interests, and dignity of the infants on whom circumcision is performed, it is important to consider whether *parents* are provided with the proper information to make an autonomous choice in this matter. Beauchamp and Childress explain that in order for a decision to be considered autonomous, it must meet three conditions: intentionality, understanding, and non-control.[68]

The condition of intentionality requires that the decision is made consciously and intentionally, rather than by mistake or as an unexpected consequence of a different decision. This

[67] Brito et al., 530.
[68] Beauchamp and Childress, 102.

is not typically a concern with circumcision. In contrast, the condition of understanding requires those who are making a decision to be reasonably informed about its typical effects—both positive and negative. Of course, as with any medical procedure, most patients' understanding of the risks and benefits will never be as thorough as their doctors'. This is expected, and usually not a cause for deep concern.[69] The gist of the condition of understanding, though, is that patients should at least have an *accurate* perception of the scale of risks and benefits that they can expect to experience as a result of choosing a medical intervention. In other words, they should not have any serious false perceptions about the likely outcomes. This ensures that they do not decide to go forth with a procedure under false pretenses, such as believing that they will acquire benefits that they likely will not.

Unfortunately, there is reason to believe that modern-day North Americans have extreme misconceptions about circumcision's ability to prevent infections, and that such false beliefs often contribute significantly to their decisions about whether or not circumcision is preferable.[70] For example, one study showed that 44.8% of respondents in a sample of Canadian parents who decided to circumcise their children listed "prevention of infection or cancer" in their top three reasons for making their choice.[71] This indicates that many parents may significantly overestimate circumcision's medical utility, and are making decisions based (at least in part) on these false conceptions, thus exhibiting that the condition of understanding in the principle of autonomy is not being met.

The third and final condition of the principle of autonomy is non-control. This condition requires the decision to be made entirely of someone's own volition, without any coercion by

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[69] Christensen-Szalanski et al., "Circumcision and Informed Consent: Is More Information Always Better?" Though out of date and based on a very particular sample of parents, this study suggests that listing off every possible risk of circumcision may simply leave parents feeling uncertainty and resentment for their doctors, without impacting their decision.

[70] Earp, Sardi, and Jellison.

[71] Rediger and Muller.

external forces. As I discuss in chapter 4, it is impossible for a decision to be made in complete absence of external influence. The gist of this principle, though, is that patients should not feel threatened to make a certain choice, nor should they be offered any incentives that might lead them to a choice that they would not have made otherwise. Notably, as we will see in chapter 3, something as seemingly-insignificant as perception of a doctor's personal preference could sway people to make a decision that they would not have made based solely on the procedure's facts. Thus, it is important for doctors to lay out information in a way that does not leave patients sensing their personal preferences more so than medical facts. This ensures that patients are truly supported in making a decision that aligns with their own preferences and values, rather than feeling persuaded to follow someone else's. Suggestions for this are discussed in the chapter 4 section called "Employ Thoughtful Choice Architecture."

Clearly, assessing autonomy in infant circumcision decision-making is nuanced. But based on the current knowledge regarding the procedure, as well as current views in bioethics, it is pertinent to ask ourselves whether circumcision truly provides infants with the personal respect and prospects of self-determination that are intended by the principle of autonomy and other proxy decision-making frameworks. Furthermore, we must investigate whether the current informed consent procedures provide *parents* with the necessary information to make truly autonomous decisions.

In summary, there is reason to believe that infant circumcision violates the principles of non-maleficence and beneficence. If parents have a general understanding of these risks and lack of benefits yet still choose to pursue the procedure for their children, then at the end of the day, as is called for by the principle of autonomy, we must respect that decision. However, there is reason to believe that many American adults are *not* well educated about the topic, and are deciding to

circumcise their infants in part based on false medical beliefs. If such false beliefs are acting crucially in parents' decision-making, then their autonomy is clearly being violated, as it means that their medical providers are allowing them to pursue a procedure that they otherwise may not have, as a result of false medical information. This is ethically problematic not only for its violation of parents' autonomy, but because it allows parents to make a decision for their infants which is, in itself, ethically questionable, without even being aware of the facts that make it ethically questionable. So, we must investigate: Why do so many American parents choose to circumcise their infants?

Existing Research on Why Parents Choose Circumcision

Given the evidence of potential harms, the lack of evidence for significant benefits, and the ethical questionability of infant circumcision, some other researchers have already begun to investigate why so many American parents pursue the procedure for their children. However, this past research has been quite meager, and many of the studies present methodological plot holes.

One major issue in the past studies can be seen in their sampling methods. First, many of the studies used very few participants.[72] Two such studies also acquired their participants through circumcision-related social media groups. This clearly creates a bias by attracting people who already hold particularly strong views on the topic. As such, the data from these studies is unlikely to accurately represent the thoughts and experiences of the majority of American parents.

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[72] Carpenter, "Circumcision Stories." - **12 participants**, acquired through posts in newsletters and circumcision **social media groups**;
Monk, "Making the Cut." - **6 participants** in **Winnipeg, Canada;**
Morgan et al., "Decision-Making Regarding Newborn Circumcision." - **10 participants** in **Hartford, Connecticut**;
Reeves and Mishtal, "Situating Parents' Circumcision Decision-Making within Health Research." - **33 participants** acquired from a snowball sample and circumcision **social media groups**.

Of the studies that have used more participants, many of them drew only from one region.[73] Due to the fact that trends in circumcision vary so drastically from state to state, as well as the fact that conformity and norms play an important role in the perpetuation of the practice, the data from these studies cannot be generalized beyond their locales.[74] Therefore, their data is not very helpful in understanding how the practice operates on a larger scale.

A final sampling flaw can be seen in studies that only looked at parents who chose to circumcise, without studying those who did not.[75] Without anything to compare to, it's hard to see which factors and experiences actually made the difference in choosing to circumcise versus choosing not to.

In addition to the many sampling flaws listed above, past studies on this topic have failed to provide a thorough enough analysis of all of the factors that contribute to the perpetuation of the practice; many studies used very short questionnaires, which assessed only a few specific questions. For example, Rediger and Muller's 2013 study asked for parents to self-report which factors contributed to parents' decisions, providing options such as hygiene, religion, and the father's circumcision status. However, they did not ask about the participants' interactions with their health care providers, their perceptions of the procedures' medical benefits, their insurance

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[73] Ahaghotu et al., "Psychosocial Factors Influence Parental Decision." - 146 **African American parents** in **Washington, DC**;
Binner et al., "Effect of Parental Education on Decision-Making." - 190 parents from **Houston, Texas**;
Bisono et al., "Attitudes and Decision Making." - 150 **Hispanic** parents in **New York City**;
Dyal, "Factors That Influence the Parental Decision" - 101 parents from the **southeastern US**;
Guevara et al., "Neonatal Circumcision: What Are the Factors." - 265 parents in **Miami, Florida**;
Rediger and Muller, "Parents' Rationale for Male Circumcision," - 230 parents in **Saskatoon, Canada**;
Sardi and Livingston, "Parental Decision Making in Male Circumcision." - 60 parents in **Connecticut**;
Spense et al., "Why Are We Cutting?" - 201 parents in **Amarillo, Texas**;
Taylor-Clapp, "Parents' Decision Making Needs." - 155 parents in **Ottawa, Canada**;
Turini, "Circumcision: Current Parental Decision-Making," - 361 parents in **one unidentified hospital**;
Wang et al., "Updated Parental Viewpoints." - 340 parents in **Boston, Massachusetts**;

[74] "Circumcision Rates by State 2024."
Sardi and Jellison, "Demographic Differences in Circumcision Satisfaction."
Waldeck, "Social Norm Theory and Male Circumcision."

[75] Ahaghotu et al;
Guevara et al.

coverage, or their perceptions of the norms surrounding the practice.[76] Therefore, the data may not provide the full picture of how other variables contribute (either consciously or subconsciously) to parents' decision-making.

In contrast, some studies have used in-depth interviews to obtain very thorough data about parents' thoughts and experiences surrounding this topic.[77] Unfortunately, though, these were the studies with strong limitations in their samples. Therefore, it's hard to say if the patterns that were found are really representative of a large number of parents across the country.

In order to unearth a more complete picture and the root causes of why parents across America continue to circumcise their sons at such high rates, a study would need to A) use a relatively large, representative sample of parents from across the country; B) use a detailed survey to thoroughly investigate the roles of many different factors related to the decision (i.e., social norms, factual knowledge, and healthcare provider interactions); and C) use interviews to fill in any gaps and reveal patterns that may not be clear from quantitative data alone. Based on my searches of studies that have been published on research databases within the last twenty years, no such study has been done with a sample of parents from the United States.[78] In the next two chapters, I will discuss the methodology and findings of my original study which accomplished these goals.

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[76] Rediger and Muller.
[77] Carpenter;
Monk;
Morgan et al.;
Reeves and Mishtal.
[78] Two such studies have been done in Turkey:
Didişen, Karakul, and Özdemir, "Determining the Knowledge Level";
Özveren, "Defining the Pathways of Parental Decision-Making."

Chapter 2: Survey

In order to conceptualize how to advocate for more mindful and ethical practices surrounding infant circumcision going forward (to be discussed in chapter 4), this study aimed to understand why American parents choose to circumcise their infants at rates that far exceed those of other similar countries. As discussed in the previous section, past studies that aimed to address this question involved methodological flaws that preclude them from providing a thorough picture of why the practice persists. In contrast, this study used a large and wide sample, followed an exploratory approach to test many possible variables, tested for correlations between parents' decision and other variables, and included both a survey and interviews to obtain quantitative and qualitative data. This chapter discusses the survey, and the next chapter discusses the interviews.

I begin this chapter with a brief overview of the survey and its results. I then provide a detailed description of my methodology, followed by descriptive statistics on the participants' demographics and "knowledge" of circumcision. Next, I share correlational results about how different variables related to parents' decision. I conclude the chapter by discussing how these findings provide insight into answering the research question.

Overview

The survey followed a cross-sectional, correlational design to assess how various factors relate to parents' decisions of whether or not to circumcise their sons, with the ultimate goal of understanding why infant circumcision persists at such high rates in the United States. In an online survey through the survey platform Qualtrics, 215 parents of US-born males under the age of five

answered questions about their knowledge of circumcision, their decision-making process regarding the procedure, and their demographics.

The survey confirmed findings from past studies, such as the fact that a boy's circumcision status strongly correlates to the status of his father, and that "hygiene" and prevention of penile complications are commonly-cited reasons for parents to choose circumcision. However, the study also revealed new findings such as the fact that parents' decisions are often correlated with over-estimated beliefs in medical benefits, as well as factors relating to social norms (i.e., local prevalence, perception of prevalence, and familiarity). This adds nuance to the findings of past studies which merely asked parents to self-report which factors influenced their decisions, rather than measuring correlations between other variables. Emory University's Institutional Review Board approved this survey and the associated interviews before the study began. The study received funding from the Luke Kendall Small Research Award and Emory University's Undergraduate Research Programs.

Method

Participant Acquisition

To acquire participants for this study, I hired the online market research company PureSpectrum (https://www.purespectrum.com/). PureSpectrum partners with double-opt-in market research panels to create relatively representative samples of survey participants that meet any given set of participation criteria. PureSpectrum uses a variety of technology to block low quality and potentially fraudulent respondents from entering their surveys. Participants receive compensation for their responses through the panel on which they signed up to participate, *not* through PureSpectrum directly. The majority of our participants found this survey through the

following panels: Branded Surveys, the Providers app, Qmee, and FreeCash. Compensation from these panels can take a variety of forms including cash, gift-cards, points, and virtual currency.

In order to qualify for this study, participants had to be the parent of a male who was born in the United States within the last five years. Accordingly, PureSpectrum's partner panels made the survey available only to individuals who they believed would meet this criteria based on their known demographics information and personal profiles. Before fully launching the survey, PureSpectrum "soft-launched" to 16 participants to ensure that everything worked well. This soft-launch revealed that some participants completed the survey much faster than expected, and some responses had inconsistent answers. (For example, some people reported a different birthday for their son(s) in the beginning vs the end of the survey.) To address these concerns, we added two quality control questions based on Qualtrics' market research advice.[79] PureSpectrum programmed the Qualtrics survey so that going forward, anyone who failed to properly answer these two questions would be locked out of the survey and banned from their platform. After adding these measures, we deleted the soft-launch responses, and re-launched the survey until we had approximately 200 satisfactory responses. All survey responses were completed between November and December 2023.

Survey Procedures

The full survey can be found in the Appendix. It began by asking participants to read an informed consent document and commit to providing thoughtful answers. (This was the first of the two quality control questions that we added based on Qualtrics' advice.) After this, the parents were asked to report the date of birth, state of birth, and circumcision status for each of their sons.

[79] Qualtrics, "Improve Data Quality."

Then, they answered 13 questions about their circumcision decision-making process (i.e., who was involved in the decision, what factors influenced their decision, and how they learned about the topic).

The second section of the questionnaire asked 11 questions to assess the parents' knowledge of circumcision and related topics. These knowledge-based questions were inspired by Brian Earp and Lauren Sardi's 10-item, peer-reviewed knowledge questionnaire from their study, "False Beliefs Predict Increased Circumcision Satisfaction in a Sample of US American Men."[80] This section also included the second quality control question based on Qualtrics' advice.

The third section of the survey consisted of 9 demographics questions. Finally, the parents were asked to re-state the date of birth and circumcision status of each of their sons, in order to confirm the truth and accuracy of their responses.

At the end of the survey, participants were given the option to share their email address if they were interested in participating in a paid follow-up interview. They were also given the option to share their email address if they were interested in being updated on the findings of the study after it is complete.

We collected a total of 391 survey responses in three separate batches. Of the 391 initial responses, we removed 176 of them for failing to meet certain quality control measures: 15 responses were flagged by Qualtrics as potential bots; 1 response was flagged by Qualtrics as a duplicate; 20 respondents failed to complete both sections about the date of birth and circumcision status of their sons; 24 respondents did not give the same dates of birth and/or circumcision status for their sons in the beginning and end of the survey; 69 respondents did not have a son who was born within five years of their survey completion; 11 respondents did not select any option for the question about which factors were involved in their decision-making process; 36 respondents

[80] Earp, Sardi, and Jellison, "False Beliefs Predict Increased Circumcision Satisfaction."

completed the survey in less than 6 minutes, which we deemed to be too fast to properly read and respond to every question. To establish this limit, I asked colleagues to complete the survey as quickly as possible, and rounded down to the nearest whole minute from their fastest response. A histogram of all the parents' completion times confirmed that there was a clear separation between the main cluster of respondents who took between 6 and 20 minutes, and the few respondents who took less than 6 minutes.

After removing the disqualified responses, I used Qualtrics' Stats iQ feature to run statistical tests on the data, with the goal of learning how different variables related to whether or not parents chose to circumcise their most recently-born son.

Results

Participant Demographics

The final dataset consisted of 215 responses. These 215 responses had a median completion time of 10 minutes and 22 seconds. (Median is used rather than mean because a few outliers had the survey open for far longer than average, causing a significant skew). The respondents represent a convenience sample of parents of boys under five years old from across the United States. The parents currently live in 44 out of 50 states. 77.2% of the respondents circumcised their most recently-born son (n = 166), and 22.8% did not (n = 49). Figures showing the demographics of the participants can be found below.

Figure 1

Distribution of Participants' Current State of Residence

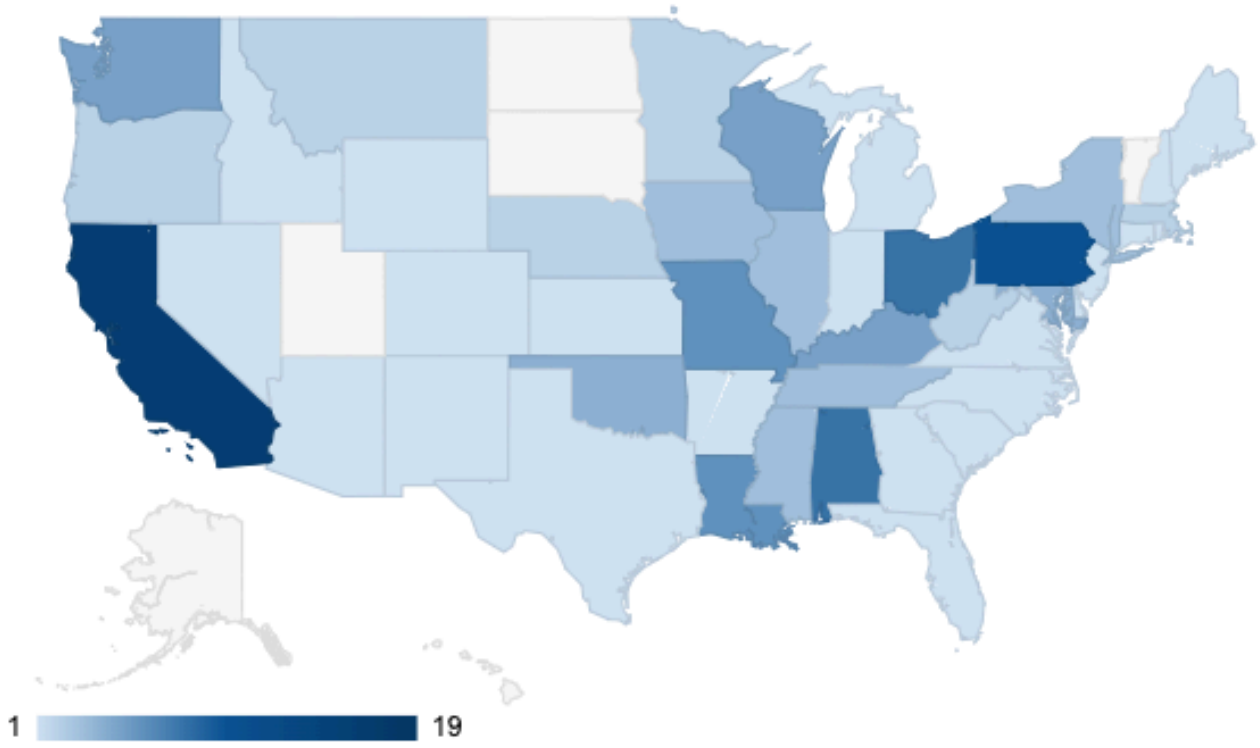
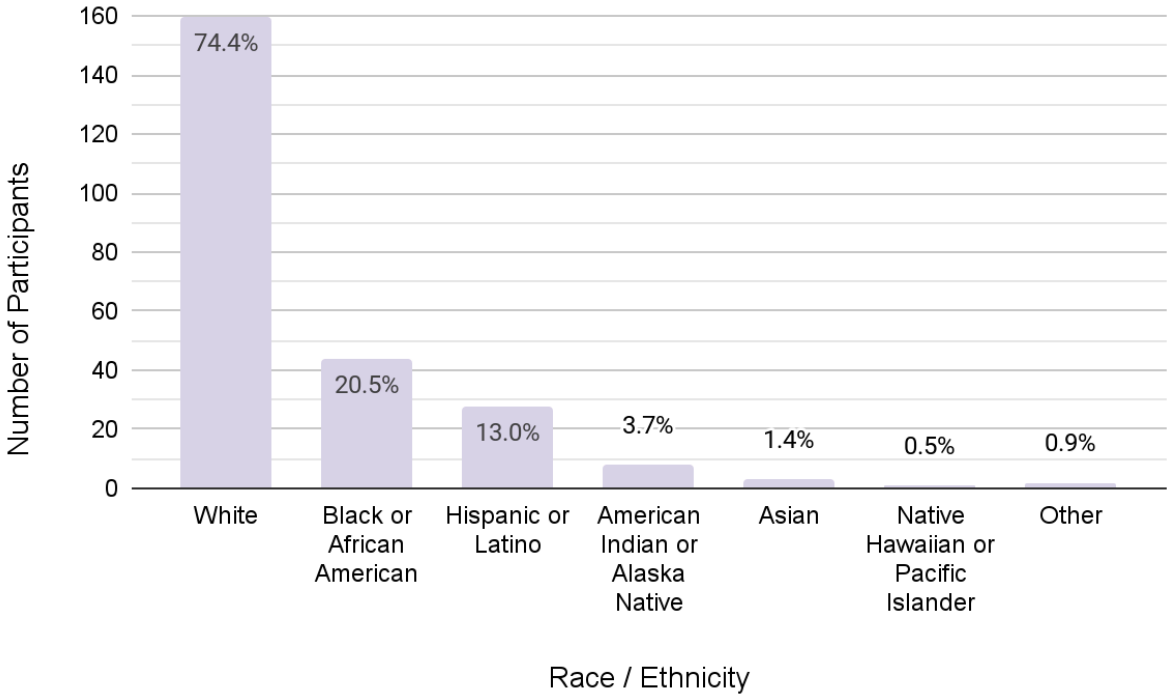


Figure 2

Distribution of Participants' Race / Ethnicity



Note: total is greater than 100% because this was a "select all that apply" question.

Figure 3

Distribution of Education Level

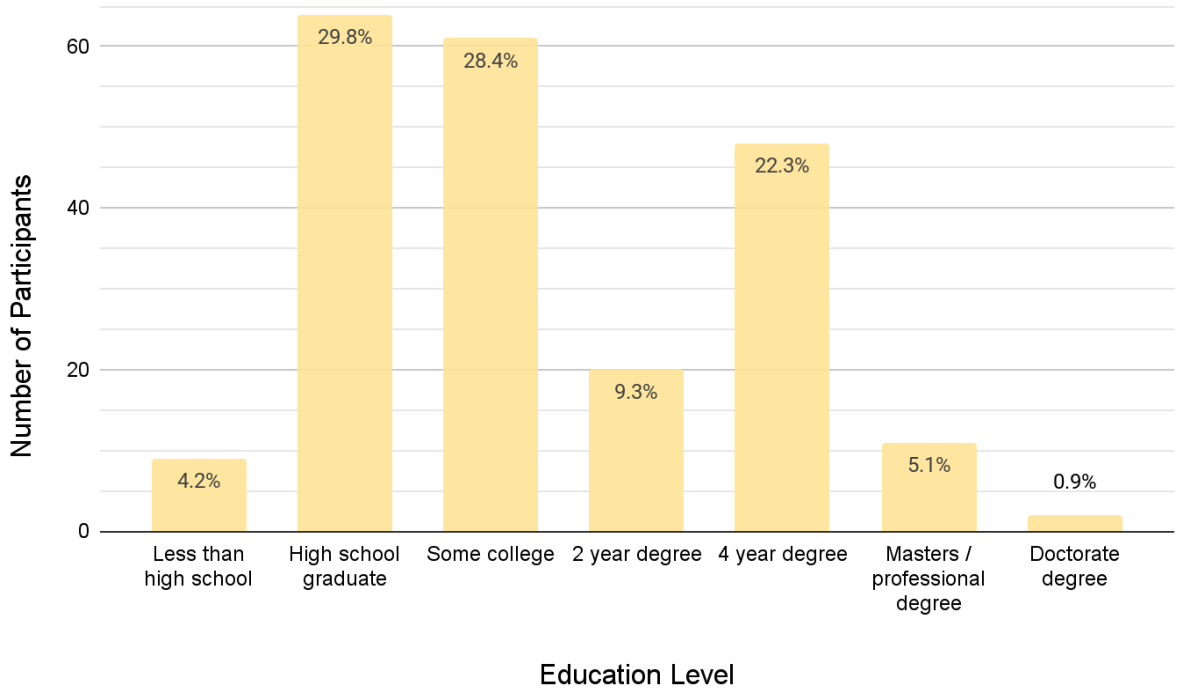
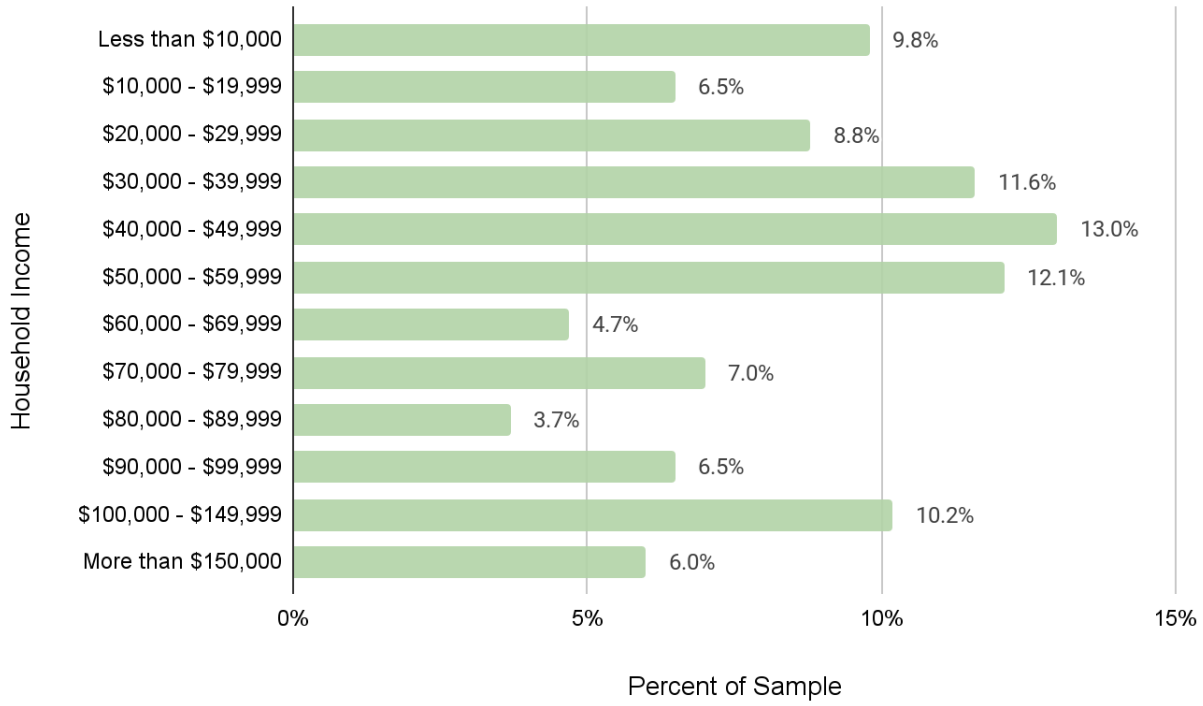


Figure 4

Distribution of Household Income



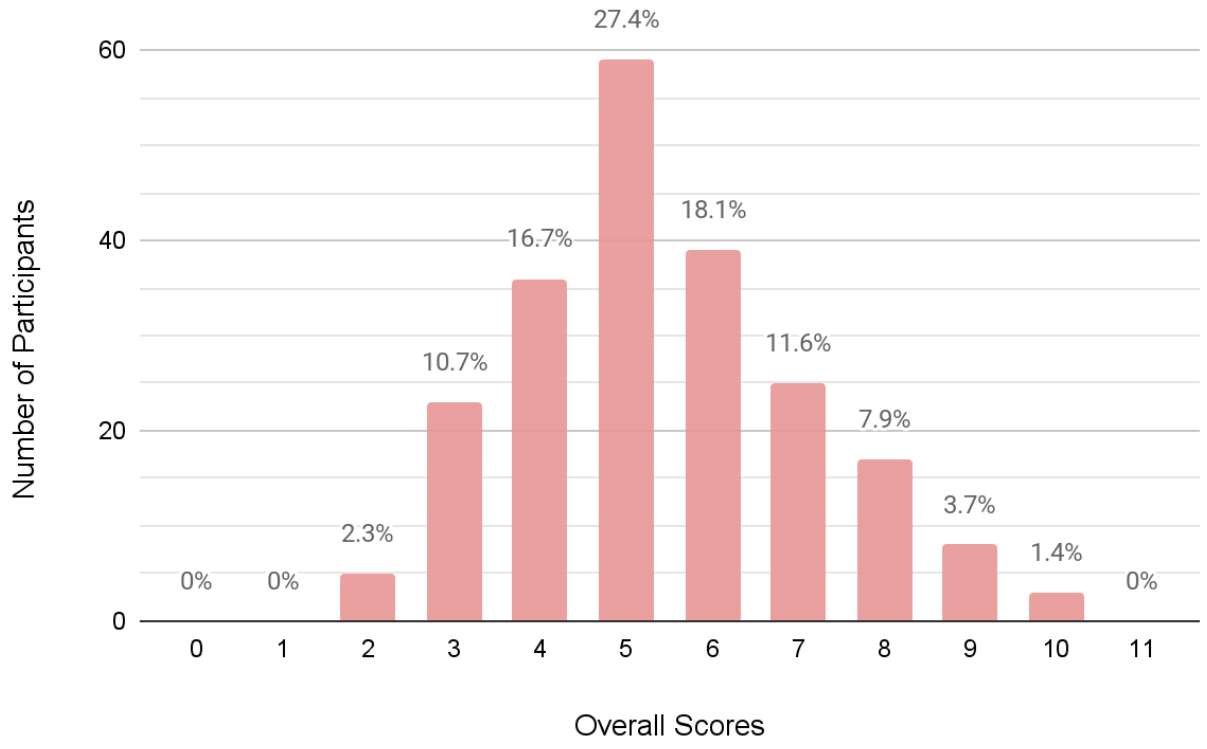
Knowledge Assessment

Overall, the parents performed extremely poorly in the survey's knowledge assessment. The median score was a 5 out of 11, and none of the 215 parents got every question correct (M = 5.4, SD = 1.7). See the appendix for the exact wording of all questions. In this section as well as the appendix, the answers that were counted as "correct" are marked by yellow highlights. Note that some questions allowed multiple answers to be counted as "correct," due to different possible interpretations of the question, as well as a lack of consensus in the research on the topic. Additionally, some questions did not directly pertain to circumcision (for example, how common UTIs are in females), and there were more questions about some topics than others (for example,

four of the 11 questions were related to UTIs). Therefore, this data should not be interpreted as a concrete marker of parents' knowledge about circumcision, but rather as a general indicator that better education (and better research) is needed in this field.

Figure 5

Distribution of Overall Scores



Parents' estimations of what percentage of American-born males were circumcised in the last five years were all over the map, with less than half (43.7%) landing within a reasonable range (between 60 and 80%). 60.9% of respondents were aware that circumcision rates in the US far exceed those in other English-speaking countries. However, only 5.6% knew why circumcision became popular in the United States (to prevent masturbation). Further, 67.9% of the participants falsely believed that circumcision is less invasive than all forms of female genital cutting.

Figure 6

Distribution of Percent of American-Born Males Believed to be Circumcised in Infancy in the Last Five Years

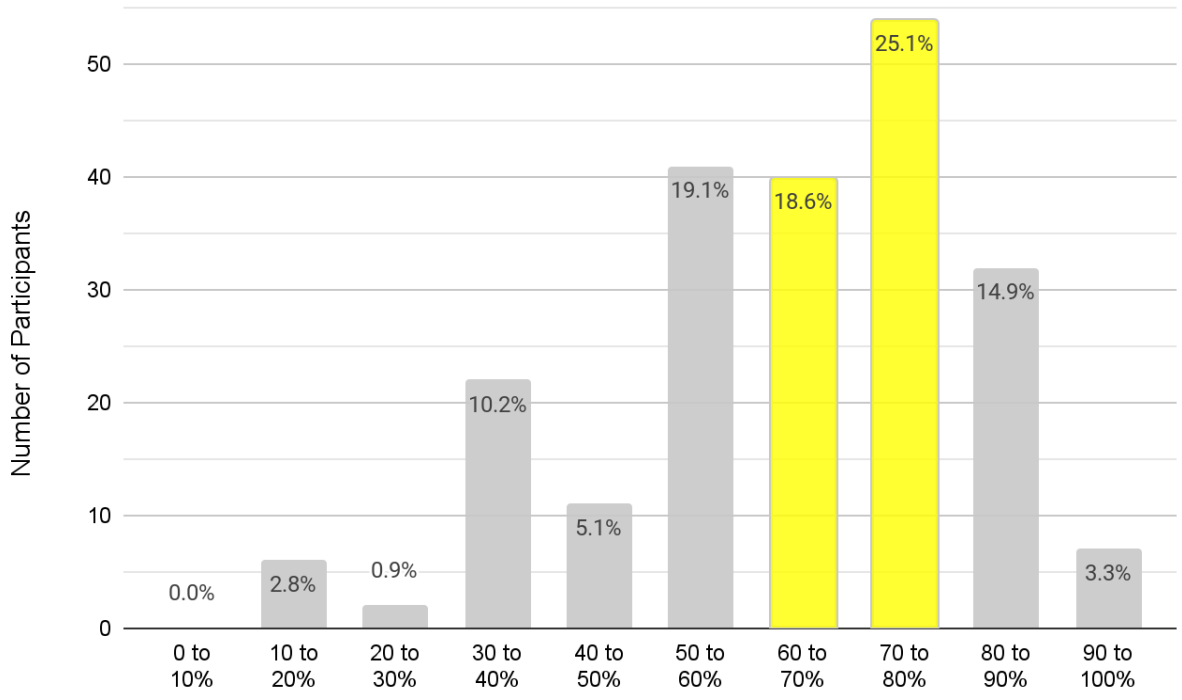


Table 1

Participants' Cultural Knowledge

	n	**%**
Infant circumcision rates in the US are…		
Significantly higher than other English-speaking countries	131	60.9%
About the same as other English-speaking countries	73	34.0%
Significantly higher than other English-speaking countries	11	5.1%
Infant circumcision became popular in the United States…		
To help maintain hygiene	96	44.7%
To prevent illnesses such as STDs and UTIs	44	20.5%
Because it was widely practiced by the Europeans	35	16.3%
Mostly for aesthetic reasons	28	13.0%
To prevent boys from masturbating	12	5.6%
Male circumcision is less invasive than all forms of FGC		
True	146	67.9%
False	69	32.1%

The majority of parents (57.7%) were correct in saying that the foreskin is NOT typically the least sensitive part of the penis when exposed to light touch. Similarly, 67.4% were correct in knowing that foreskin has unique properties beyond that of regular skin.

Table 2

Participants' Anatomical Knowledge

	n	**%**
Foreskin is typically the least sensitive part of the penis when exposed to light touch		
True	91	42.3%
False	124	57.7%
Foreskin has unique properties beyond that of regular skin		
True	145	67.4%
False	70	32.6%

70.2% of respondents believed that circumcision has significant medical benefits for boys born in the United States today. As expected based on the AAP's 2012 policy statement, the highest proportion of parents (46%) believe that the condition which is most effectively prevented by circumcision is UTIs. The second most popular choice in this question, earning 40% of the vote, was "None of the above." This percentage is noticeably higher than the 29.8% of parents who, in the last question, did not believe that the procedure has significant medical benefits. This raises questions about what medical benefits the remaining 10.2% believe exist.

Unfortunately, though many parents were aware of circumcision's correlation with UTIs, only 5.1% knew exactly *how effectively* the procedure prevents the condition (that it would require 100 circumcisions to prevent one UTI). However, the majority of parents (59.5%) knew that, though UTIs can be fatal, they are easily cured with antibiotics. The majority of parents also knew that UTIs are very common in females.

Table 3

Participants' Medical Knowledge

	n	%
Circumcision has significant health benefits for males in the US today		
True	151	70.2%
False	64	29.8%
Which of the following is most effectively prevented by circumcision		
Urinary tract infections	99	46.0%
None of the above	86	40.0%
HPV and other STDs	16	7.4%
Penile cancer	10	4.7%
Testicular cancer	2	0.9%
HIV / AIDs	2	0.9%
Which of the following is true about circumcision and UTIs		
It prevents each boy from experiencing 3 UTIs during his life	80	37.2%
It prevents each boy from experiencing 1 UTI during his life	45	20.9%
5 boys would need to be circumcised to prevent 1 UTI	19	8.8%
100 boys would need to be circumcised to prevent 1 UTI	11	5.1%
Circumcision has no correlation with UTIs	60	27.9%
Which of the following is true about UTIs		
They can be fatal, but are easily cured with antibiotics	128	59.5%
They are not very dangerous, and easily cured with antibiotics	69	32.1
They can be fatal, and are very hard to cure	9	4.2%
They are not very dangerous, but very hard to cure	9	4.2%
Which of the following is true about UTIs in females		

On average, every female will have 3 UTIs during her life	91	42.3%
On average, every female will have 1 UTI during her life	41	19.1%
On average, 1 in every 2 females will have a UTI during her life	60	27.9%
On average, 1 in 100 females will have a UTI during her life	23	10.7%

In summary, the parents did not exhibit high levels of knowledge about circumcision. While the majority of parents selected the correct answer in the two anatomy-focussed questions, most parents selected incorrect answers for many of the cultural and medical questions.

Correlations with Circumcision Decision

To understand what factors correlate with whether or not parents choose to circumcise, I had Qualtrics' Stats iQ feature test every variable in the survey against the variable of whether or not the participants chose to circumcise their youngest son. Stats iQ automatically chooses and conducts the most appropriate statistical tests to relate any given pair of variables.[81] After analyzing the relationship between circumcision choice and each of the other individual variables, I ran a relative importance regression to see how much of the variation in circumcision choice could be accounted for by each of its correlated variables.

Demographics Variables

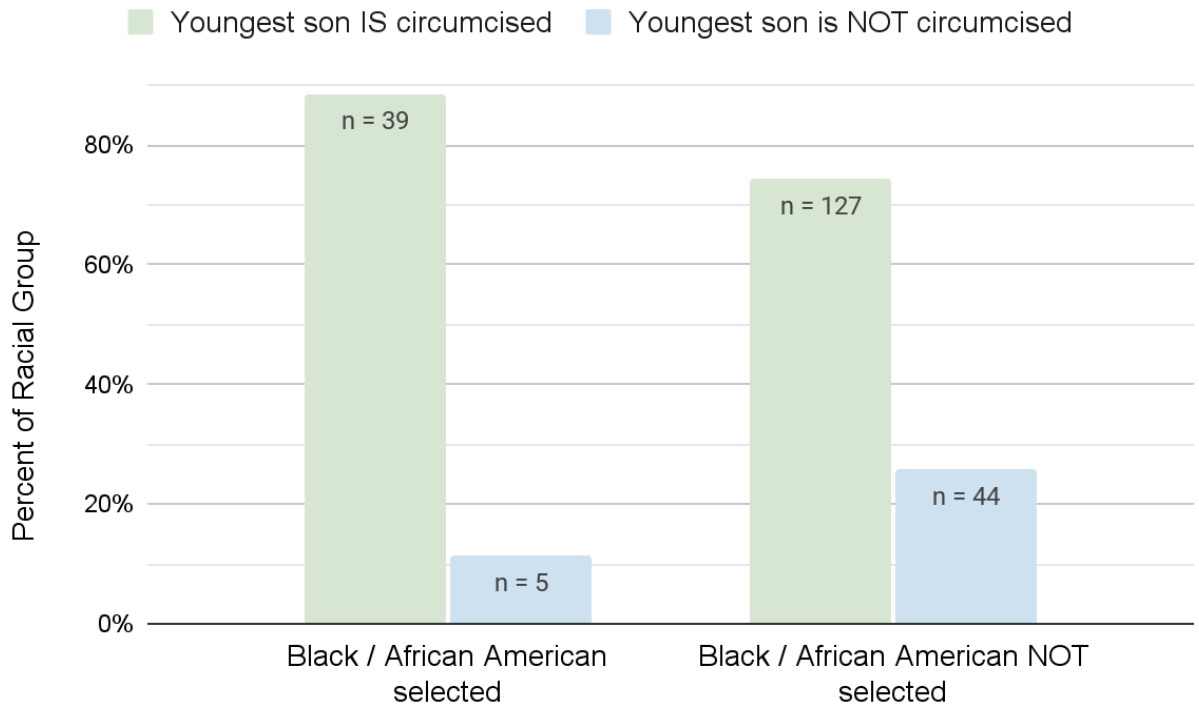
No significant correlations existed between the participants' circumcision choice and their household income, education level, age, sex, political affiliation, or religious affiliation. Though the one Jewish participant and four Muslim participants all circumcised their sons, their numbers were too low to create statistical significance. These ratios mirror that of the country as a whole.

[81] Qualtrics, "Relate Data."

A Fisher's Exact Test revealed that participants who selected "Black or African American" were significantly more likely to circumcise their sons than participants who did not select "Black or African American," $p = .045$. No other race selection had a significant correlation with participants' circumcision choice.[82]

Figure 7

Black / African American Selection vs Circumcision Choice

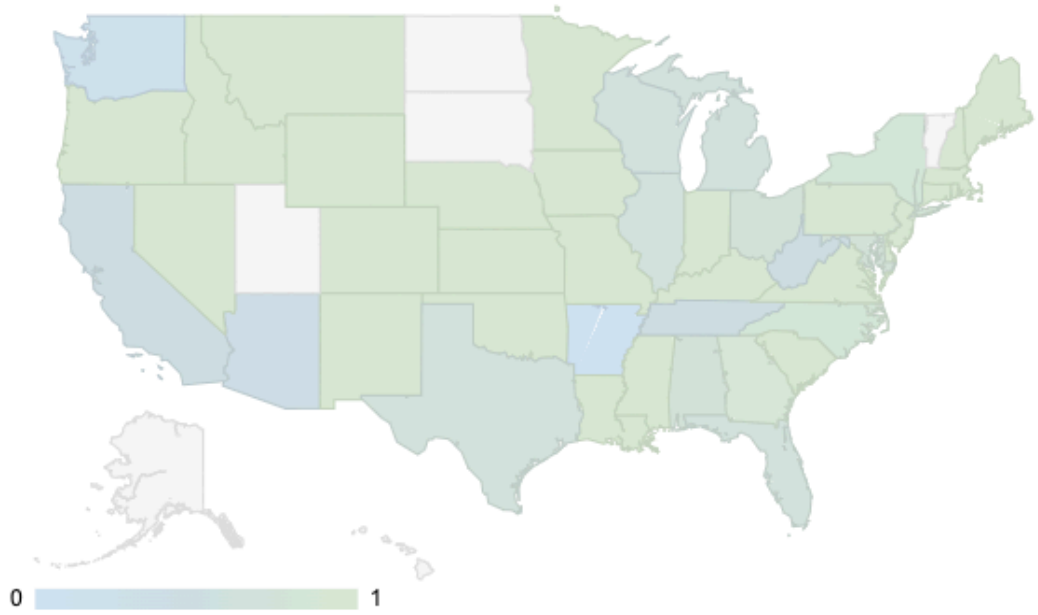


[82] This differs from the findings of the two studies cited below, though this may be explained by the fact that they both used very localized samples.
Sardi Ross, *Contradictions in Power, Sexuality, and Consent* - northeast US;
Spense et al., "Why Are We Cutting?" - Texas panhandle.

A Chi-Squared Test revealed that participants who currently live in Washington and California were significantly less likely to circumcise their sons than participants who live in other states, $X^2(43, N = 215) = 65.0$, $p = .02$. This aligns with data from World Population Review which shows that Washington has the lowest circumcision rate of all 50 states (10%), and California has the fifth lowest circumcision rate of all 50 states (23%).[83] Importantly, some states in this data set had zero or very few participants, meaning that there was not enough information to calculate whether the parents from those states were more or less likely to circumcise their sons.

Figure 8

State of Residence vs Circumcision Choice



0 = 0% of respondents in that state circumcised their youngest son.

1 = 100% of respondents in that state circumcised their youngest son.

[83] "Circumcision Rates by State 2024."

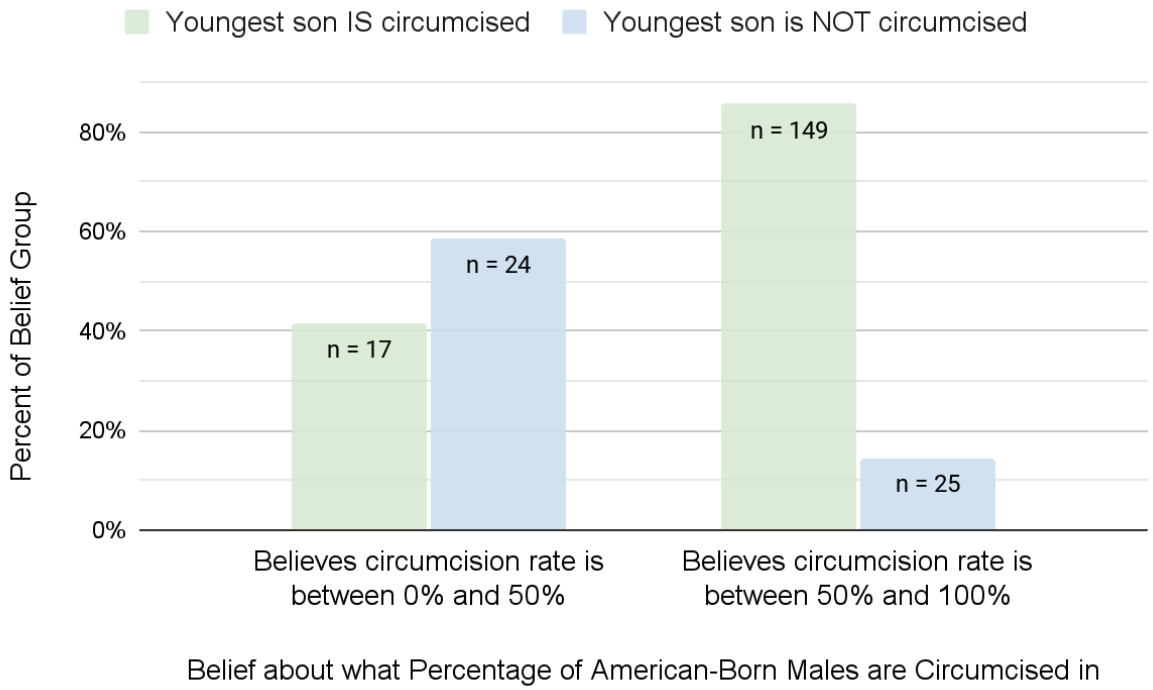
Knowledge Variables

Parents' circumcision choice was not significantly correlated with their knowledge about any of the following items: foreskin having unique properties; the efficacy of circumcision in UTI prevention; the prominence of UTIs in females; how sensitive foreskin is to touch; which infections are prevented by circumcision; or circumcision being less invasive than some forms of female genital cutting. The other five knowledge-based items did correlations significantly with parents' choice, but not necessarily based on the matter of correctness.

For example, a Fisher's Exact Test revealed that parents who circumcised their sons were significantly more likely to (correctly) believe that over 50% of American boys are circumcised in infancy, and those who did not circumcise were significantly more likely to falsely believe that less than 50% of American boys are circumcised in infancy, $p < 0.00001$. Getting this question "correct" (choosing exactly "60 to 70%") was not significantly correlated with a particular choice.

Figure 9

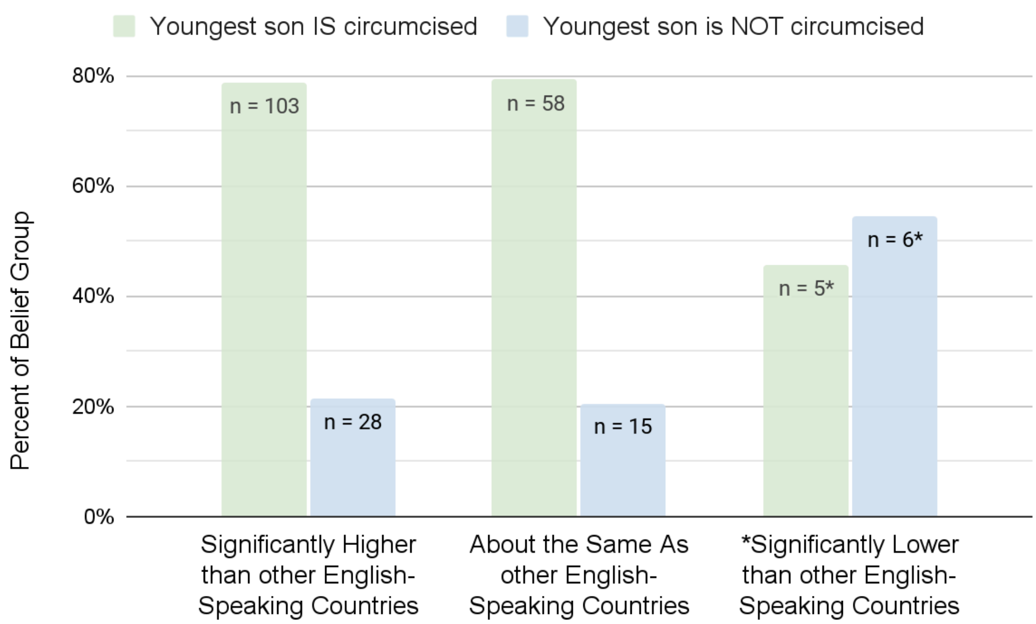
Perception of Prevalence vs Circumcision Choice



Similar to these findings about parents' perception of circumcision's perception within the US, parents who chose not to circumcise their sons were significantly more likely to (falsely) believe that circumcision rates are lower in the US compared to *other* English-speaking countries, $X^2(2, N = 215) = 6.7, p = 0.04$.

Figure 10

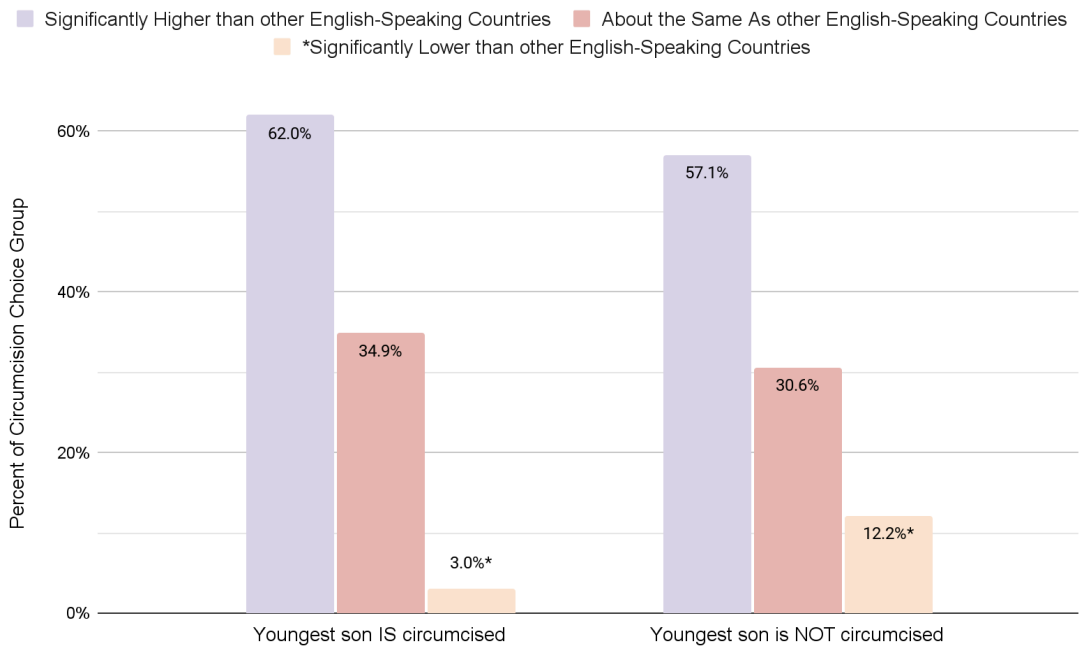
Belief about Circumcision Rates Across Countries vs Circumcision Choice



** = significantly different*

Figure 11

Circumcision Choice vs Belief about Circumcision Rates Across Countries



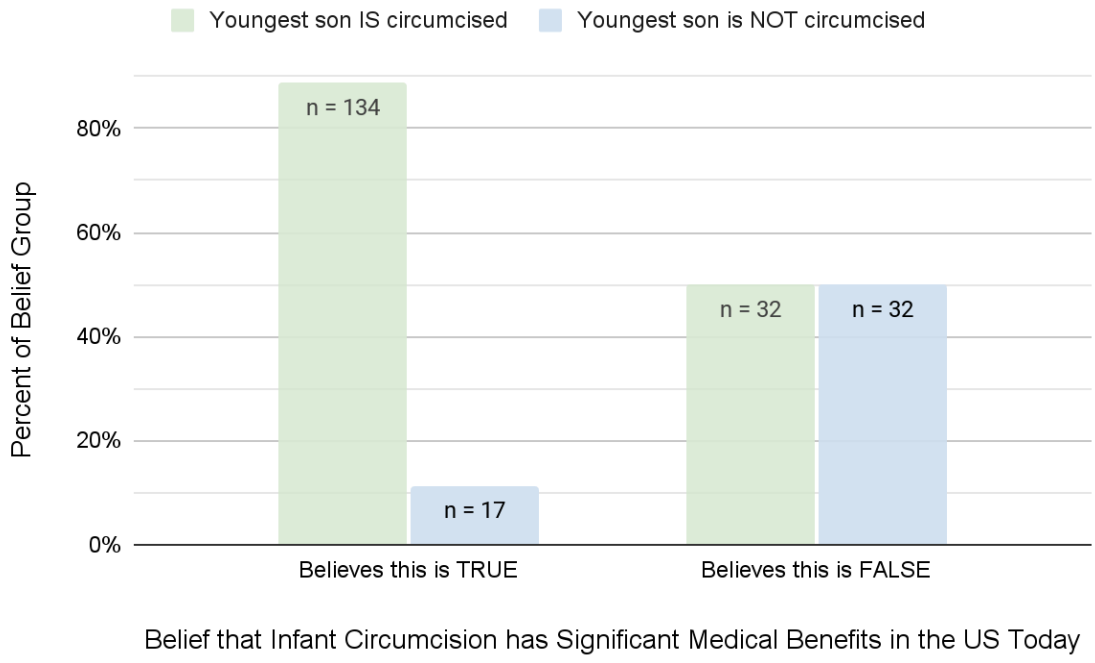
** = significantly different*

These two findings show that in general, American parents make the choice that they believe is popular among other American parents; they circumcise if they believe that doing so is more popular in America, and they do not circumcise if they believe that it is less popular in America. Of course, this is merely a correlation, and thus does not imply cause and effect or directionality. In other words, we don't yet know if parents are choosing circumcision *because* they perceive it to be popular, or if instead, they believe that it's popular because it's what seemed right to them, and they believe that most other American parents would make the same choice as they did. Chapters 3 and 4 provide some insights into this predicament.

Similarly highly-correlated to parents' perception of popularity was parents' perception of medical benefits; parents who believed that circumcision has significant health benefits were much more likely to pursue the procedure, while parents who did not believe that it has significant medical benefits were much less likely to pursue it, $p < 0.00001$. Again, this is merely a correlation; we do not know if they're choosing circumcision *because* of the perceived medical benefits.

Figure 12

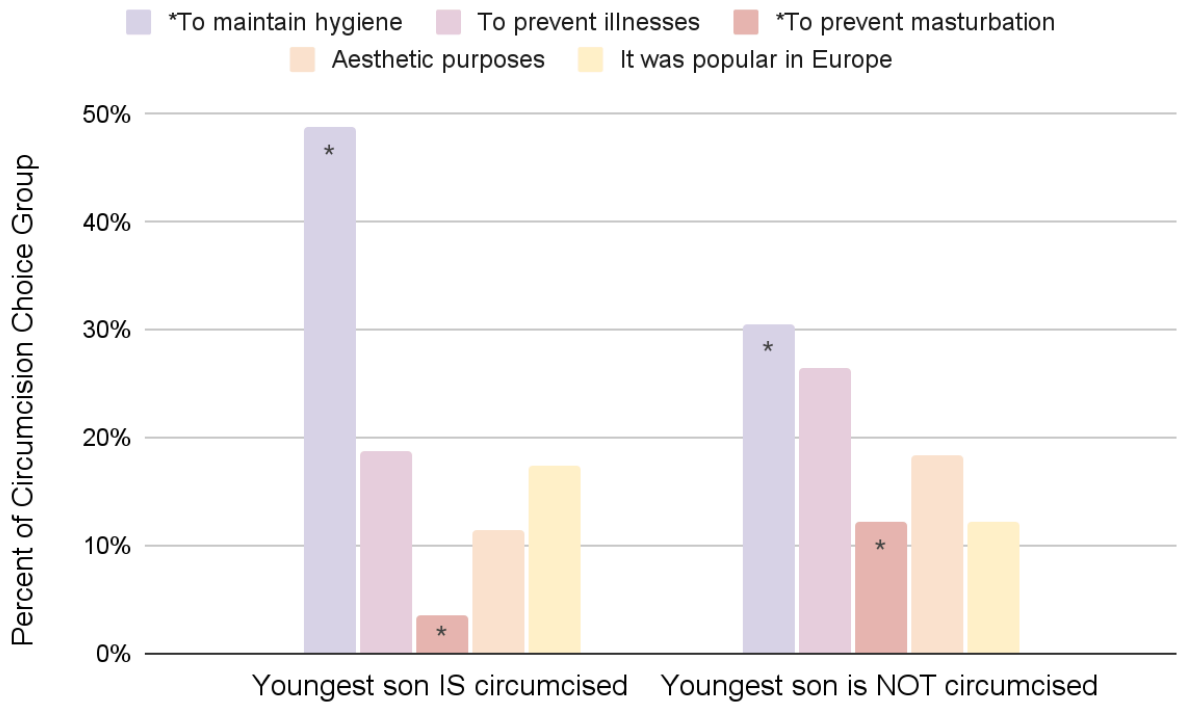
Belief in Medical Benefits vs Circumcision Choice



Parents who did *not* circumcise were significantly more likely to correctly believe that circumcision became popular in order to prevent masturbation, while parents who *did* circumcise were significantly more likely to falsely believe that it became popular to "maintain hygiene," $X^2(4, N = 215) = 11.0, p = 0.03$.

Figure 13

Circumcision Choice vs Belief about Why Circumcision Became Popular



* = *significantly different*

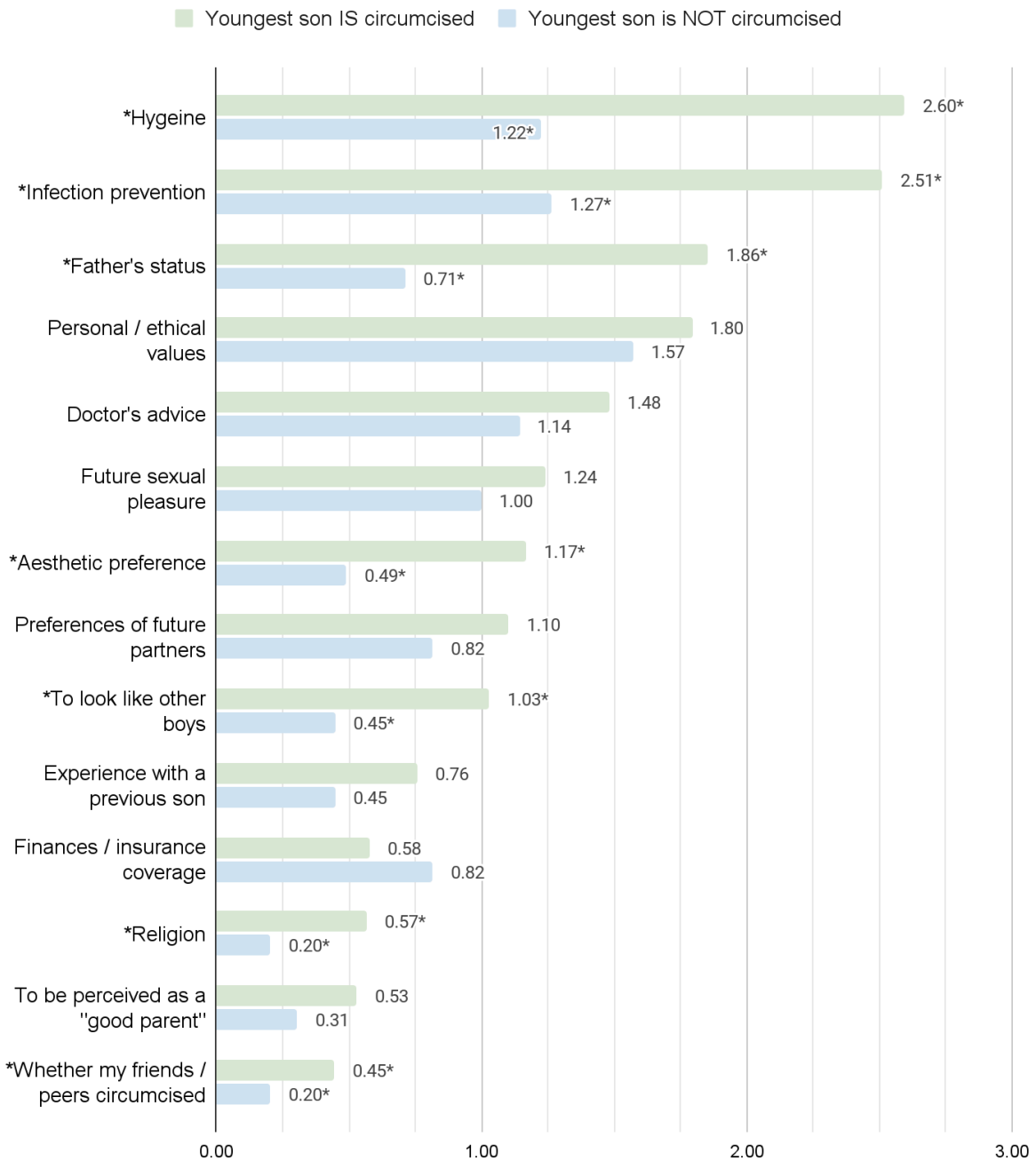
Interestingly, parents who did *not* choose to circumcise their sons were significantly more likely to falsely believe that urinary tract infections are "not very dangerous, but are very hard to cure," while parents parents who *did* circumcise were significantly more likely to *correctly* believe that UTIs "can be fatal if left untreated, but are easily cured with antibiotics," $X^2(3, N = 215) = 8.2$, $p = 0.04$. Despite this correlation, no correlation existed between parents' circumcision decision and their knowledge of circumcision's efficacy in preventing UTIs. Therefore, the difference in their knowledge about the danger and treatability of UTIs in general is unlikely to imply anything significant about their thinking on the medical utility of circumcision.

Factors Involved in the Decision

In order to understand parents' reasons for making the decisions that they made, the survey showed 14 potential factors that could influence a parent's circumcision decision, and asked them to rate each one from 0 ("not involved in my decision") to 3 ("strongly influenced my decision"). The following seven factors were rated similarly regardless of whether or not the parents decided to circumcise: doctor's advice, the preferences of future sexual partners, insurance coverage, experience with a previous son, future sexual pleasure, personal / ethical values, and desire to be perceived as a "good parent." In contrast, compared to those who did not circumcise their sons, parents who *did* circumcise their sons reported significantly higher levels of consideration for the following seven factors: hygiene ($p < 0.00001$); infection prevention ($p < 0.00001$); the father's circumcision status ($p < 0.00001$); the parents' personal aesthetic preference ($p = 0.00005$); wanting the boy to look like other boys ($p = 0.0002$); religion ($p = 0.02$); and the decisions of peers / friends ($p = 0.01$).

Figure 14

Average Rating of Decision-Making Factors, Separated by Circumcision Choice



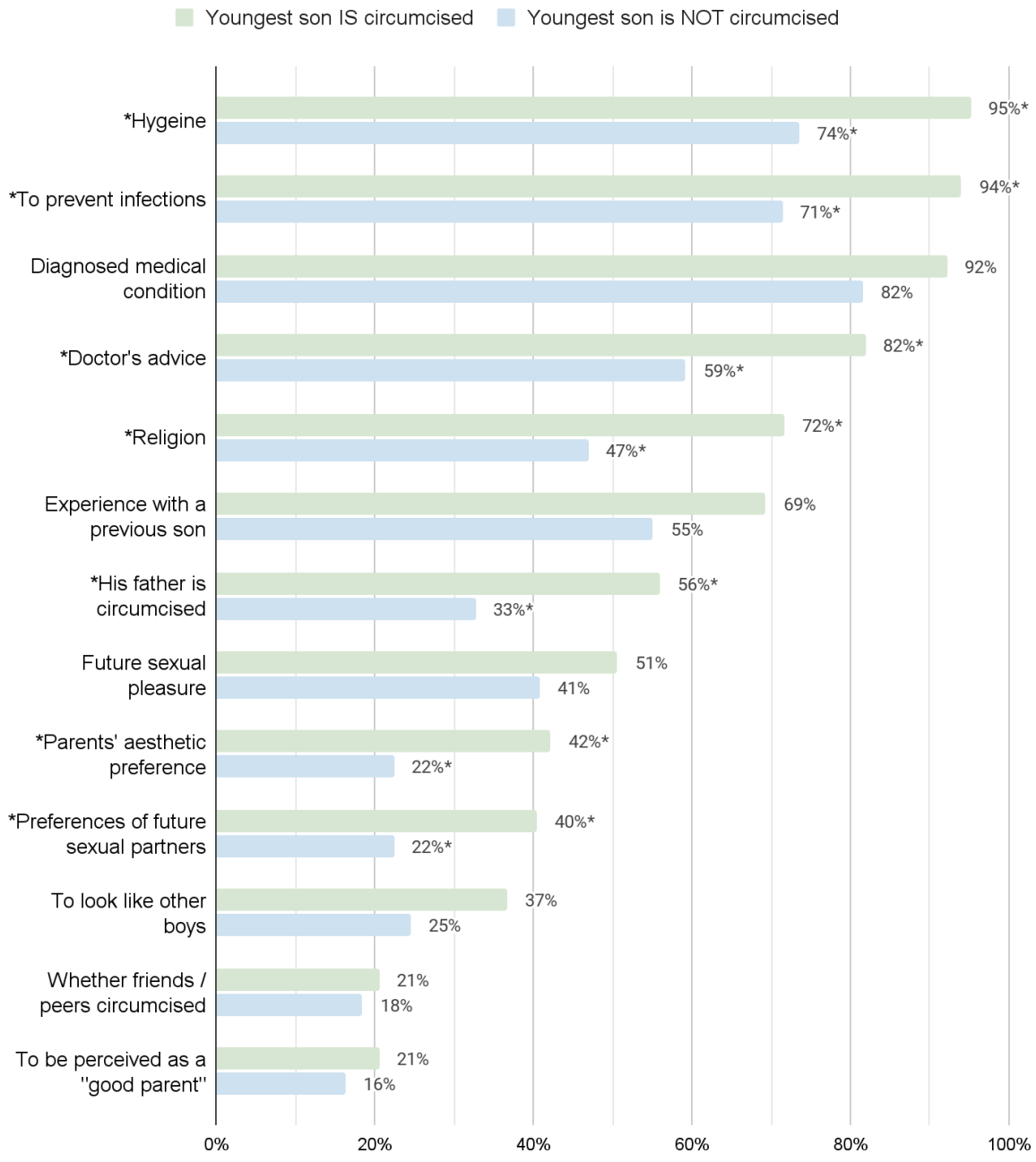
* = *significantly different*

Valid Reasons to Circumcise

One question in the survey asked, "In your opinion, which of the following could be a valid reason for parents to circumcise their sons in the United States today?" The question then listed 13 "reasons." Parents who chose to circumcise their sons were significantly more likely to feel that the following seven factors were valid reasons to circumcise: "Hygiene" ($p = 0.00005$), "To prevent infections" ($p = 0.00006$), "Doctor's advice" ($p = 0.002$), "Religion" ($p = 0.002$), "His father is circumcised" ($p = 0.005$), "The parents' personal aesthetic preference" ($p = 0.01$), and "The predicted preferences of future sexual partners" ($p = 0.03$). None of the other options varied significantly based on the respondents' circumcision decision.

Figure 15

Percent who Believe Each Reason is Valid, Separated by Circumcision Choice



* = *significantly different*

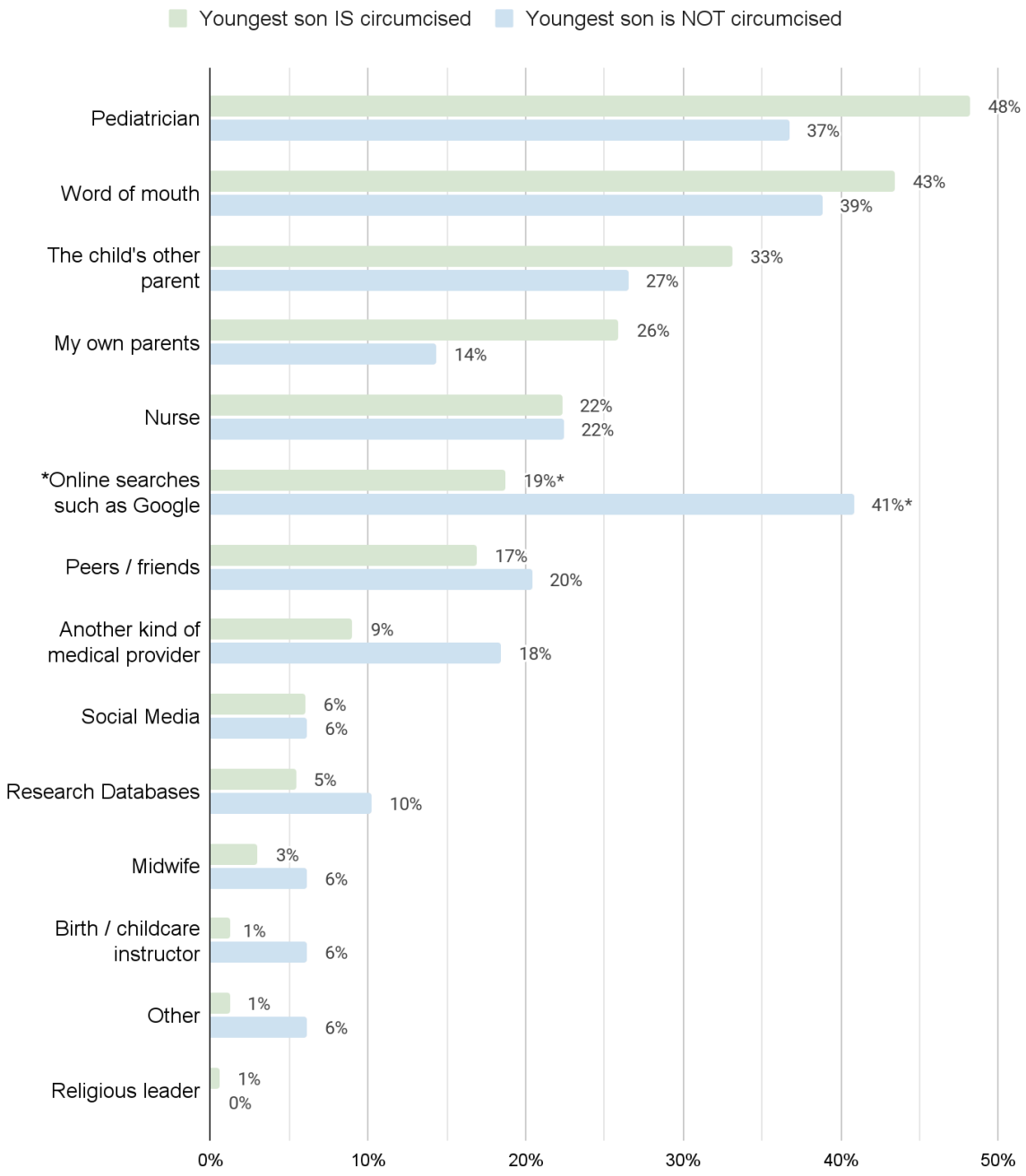
Other Variables

Between the respondents who did and did not circumcise their sons, there were no significant differences in which individuals were involved in the decision-making process. 94.9% (n = 204) selected "myself"; 71.6% (n = 154) selected "the child's other parent"; 14.0% (n = 30) selected "a pediatrician"; and 5.6% (n = 12) selected "the child's grand-parents." Less than 5% of respondents selected "a nurse," "another kind of medical provider," "peers / friends," "a midwife," or "other," and no respondents selected "an instructor at a birth / childcare class" or "religious leader."

A chart of where / from whom participants *learned* about circumcision can be seen below. Parents who learned about circumcision from "online searches such as Google" were significantly less likely to circumcise their sons compared to those who did not learn from google, p = 0.002. None of the other options varied significantly based on the respondents' circumcision decision.

Figure 16

Where Participants Learned about Circumcision, Separated by Circumcision Choice

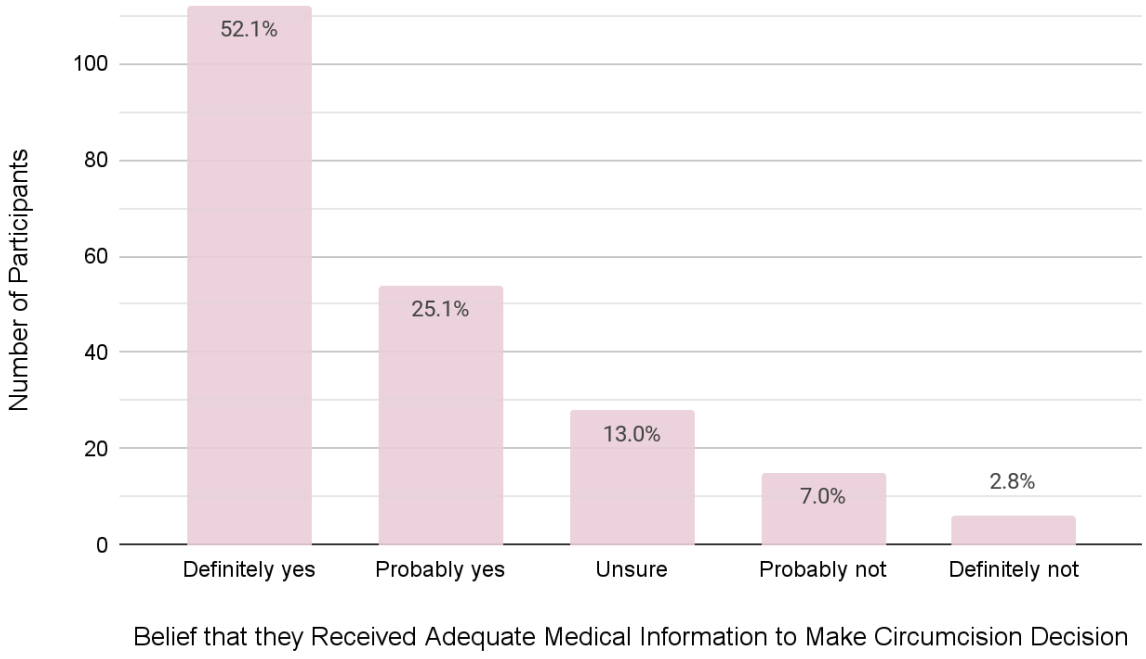


* = *significantly different*

There was no significant correlation between whether the parents circumcised their sons and whether they felt that they received adequate information about circumcision from their health care providers. Despite the clear lack of information exhibited in the knowledge assessment, the majority of participants felt that they "definitely" received adequate information. This data aligns with a past study in which 73.3% of parents felt that they received enough information, 23.3% did not, and 3.3% were unsure.[84] However, it contradicts the findings of qualitative studies (including my own interviews) in which most parents reported feeling like they did not receive adequate information to make a decision.[85] This contradiction will be discussed further in chapter 3.

Figure 17

Distribution of Perception of Medical Information from Health Care Providers

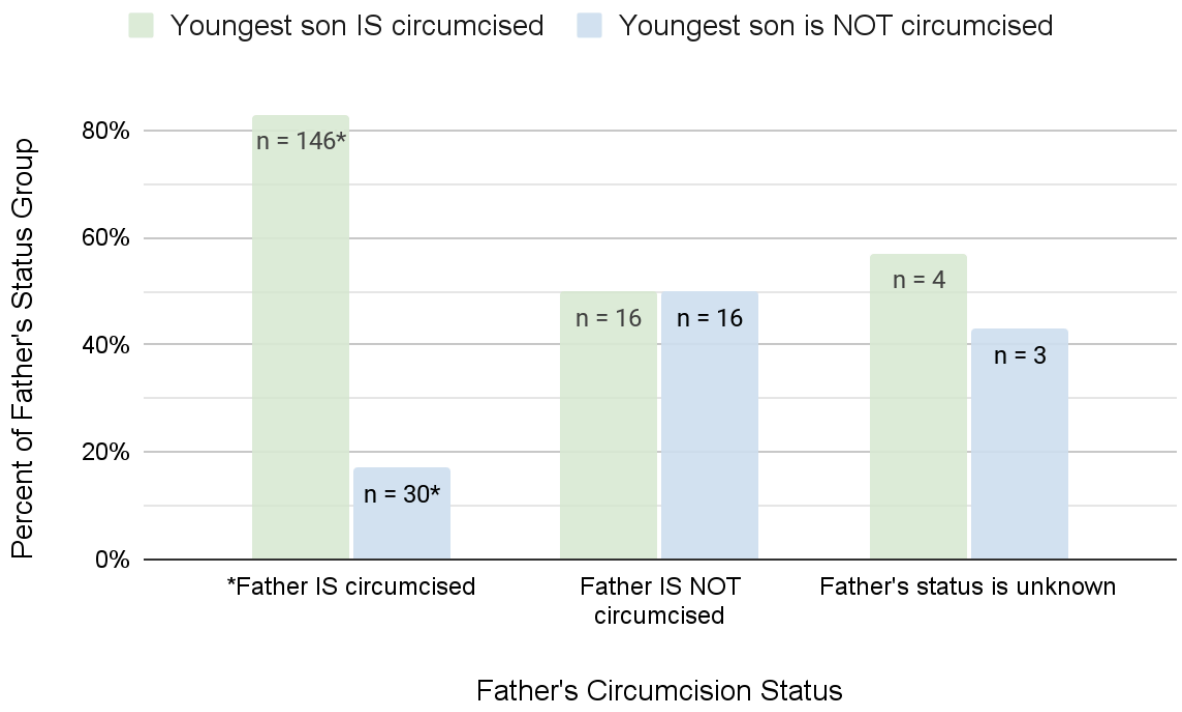


[84] Sardi and Livingston, "Parental Decision Making in Male Circumcision."
[85] Morgan et al., "Decision-Making Regarding Newborn Circumcision."

In support of other studies, children with circumcised fathers were significantly more likely to be circumcised than children with uncircumcised fathers, or children for whom the father's status is unknown, $X^2(2, N = 215) = 18.4$, $p = 0.0001$.

Figure 18

Father's Status vs Circumcision Choice

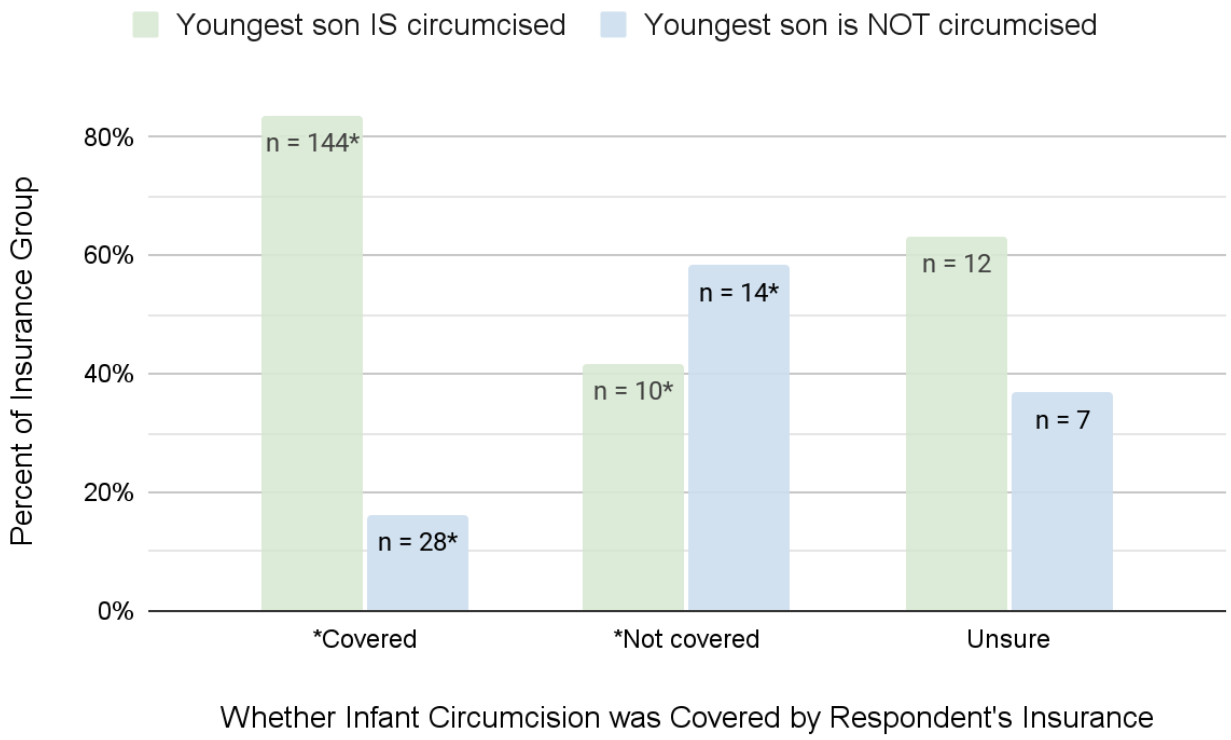


* = *significantly different*

Participants whose medical insurance covered infant circumcision were significantly more likely to choose to circumcise, and participants whose medical insurance did not cover infant circumcision were significantly more likely to choose not to circumcise $X^2(2, N = 215) = 23.5$, $p < 0.00001$. This correlation was significant for respondents with household incomes of up to $100,000 per year.

Figure 19

Insurance Coverage vs Circumcision Choice

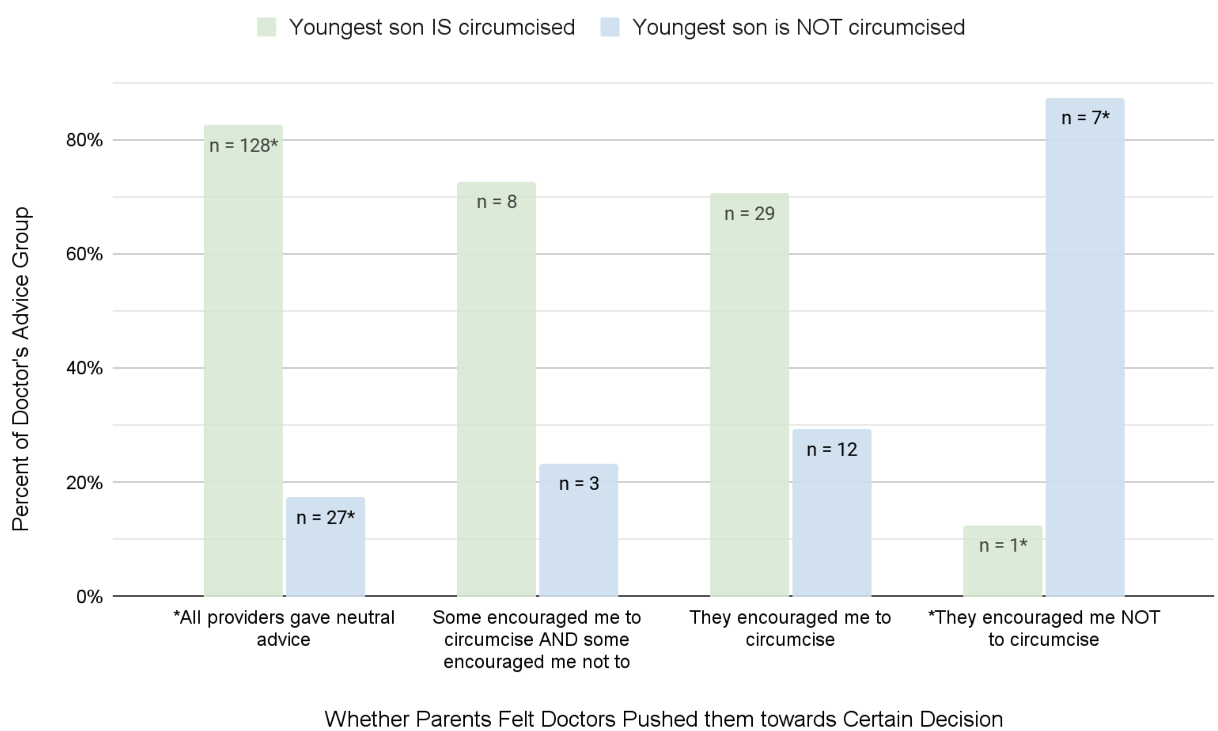


* = *significantly different*

Parents who felt that medical providers encouraged them not to circumcise were significantly more likely to not circumcise, and those who felt that all providers gave neutral advice were significantly more likely *to* circumcise, $X^2(3, N = 215) = 22.7, p = 0.00005$. Interestingly, parents who reported that medical providers encouraged them *to* circumcise were *not* more likely to do so.

Figure 20

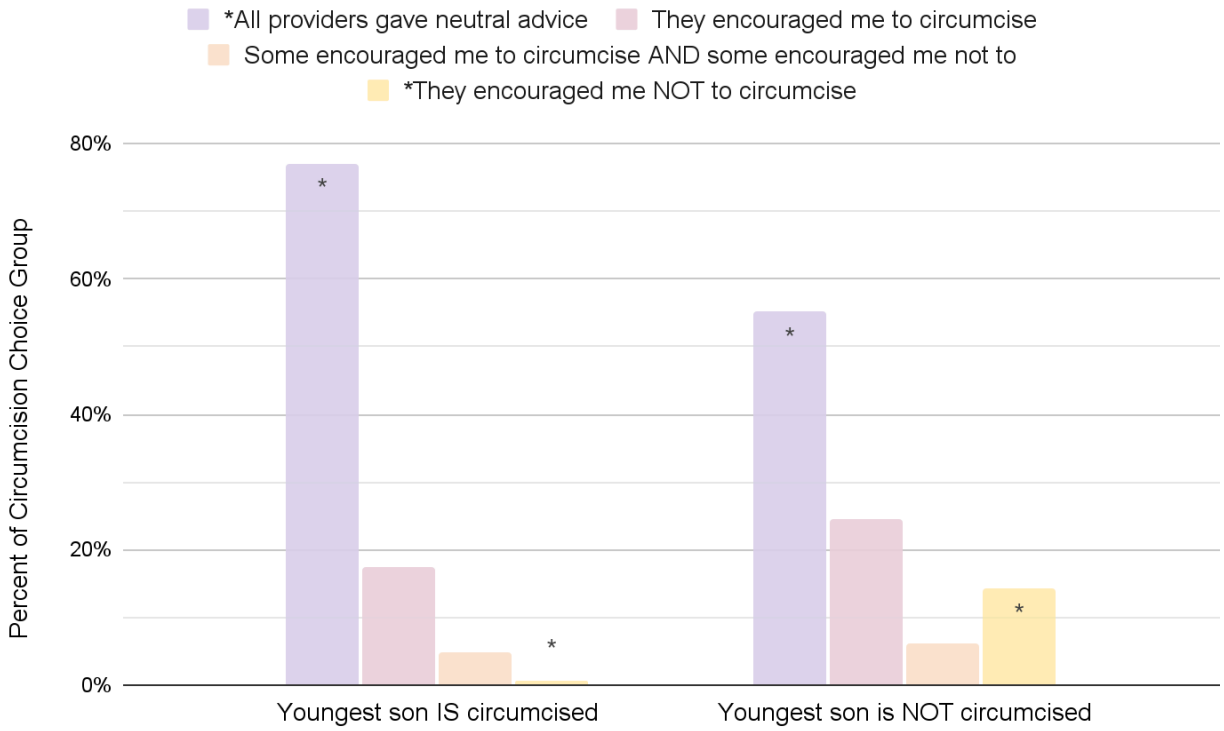
Doctor's Advice vs Circumcision Choice



** = significantly different*

Figure 21

Circumcision Choice vs Doctor's Advice



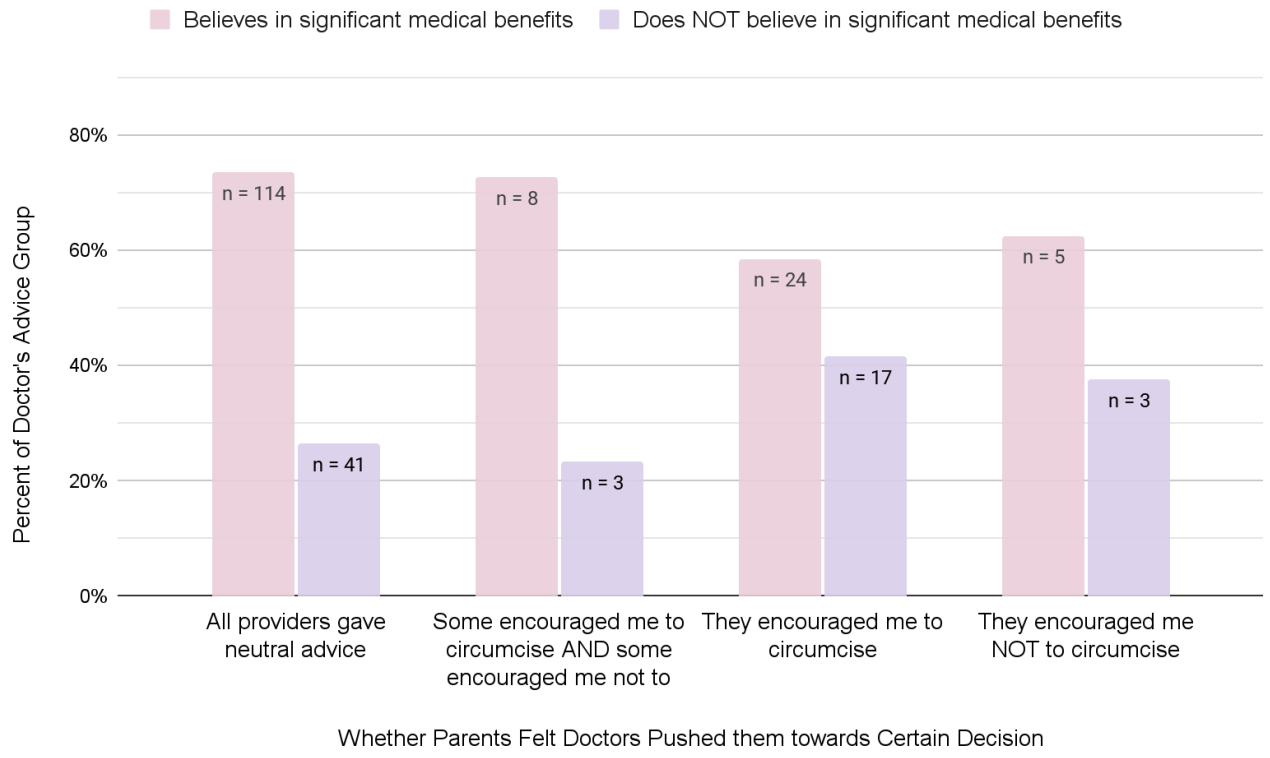
* = *significantly different*

Correlations Between Input Variables

Upon learning that parent's belief in medical benefits was so highly correlated with parents' decisions, I wanted to learn what else may correlate with this belief. To my surprise, there was no correlation between participants' belief in medical benefits and whether or not they felt that their doctors wanted them to pursue the procedure.

Figure 22

Doctor's Advice vs Belief in Medical Benefits

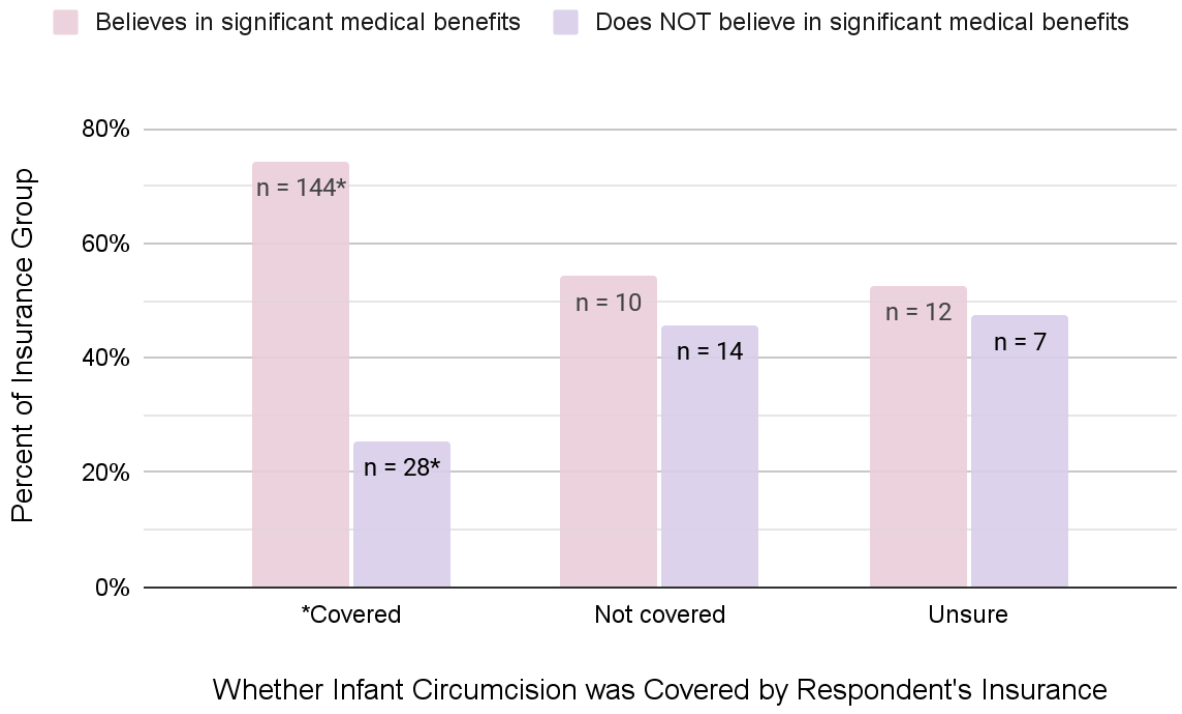


Note: no statistically significant differences.

Fascinatingly, though parents' belief in medical benefits was *not* correlated with their perception of their doctors' advice, it *was* highly correlated with whether or not the procedure was covered by their insurance; those whose medical insurance covered the procedure were significantly more likely to believe that circumcision has significant medical benefits, $X^2(2, N = 215) = 7.2$, $p = 0.03$.

Figure 23

Insurance Coverage vs Belief in Medical Benefits

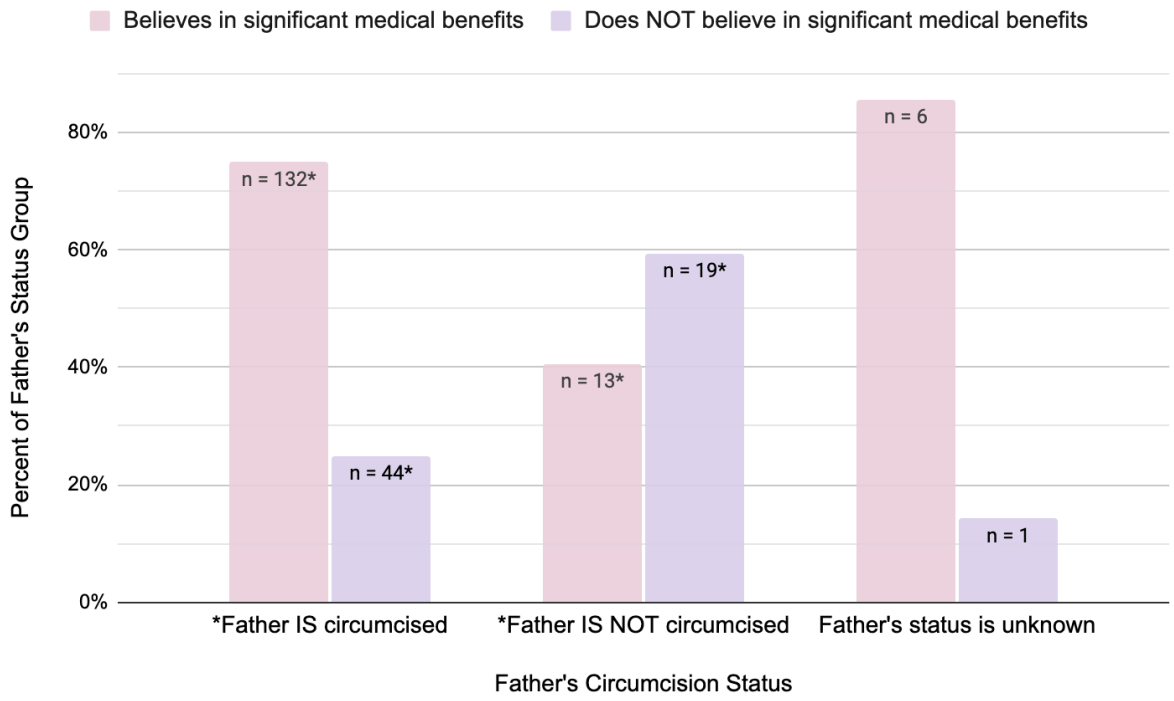


* = *significantly different*

Another statistically significant indicator of whether or not parents believed that circumcision has significant medical benefits was the circumcision status of the child's father; parents were more likely to believe that the procedure has significant benefits if they or their child's father were circumcised, and they were less likely to believe this if they or their child's father were not circumcised, $p = 0.0003$.

Figure 24

Father's Status vs Belief in Medical Benefits



* = *significantly different*

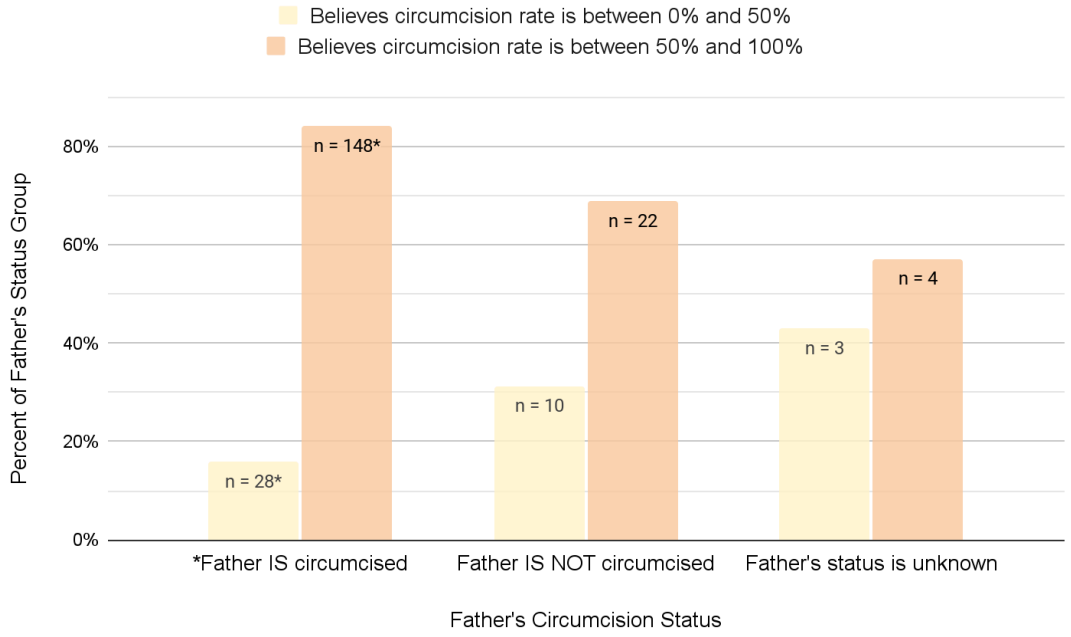
Upon learning how correlated parents' decisions were with their perception of circumcision's prevalence, I investigated what factors may influence their perception of prevalence. Not surprisingly, perception of circumcision's prevalence correlated significantly with the participants' state of residence; parents from California were significantly more likely to (falsely) believe that the national rate of infant circumcision is less than 50%, $X^2(43, N = 215) = 60.0$, $p = .04$. This is likely because circumcision rates are in fact well below 50% in their home state.[86]

There was also a significant correlation between parents' perception of circumciison's prevalence and the circumcision status of their child's father; parents were significantly more likely to believe that the national rate of infant circumcision is greater than 50% if they or their child's father were circumcised, $p = 0.03$. Despite state of residence and fathers' status both correlating highly with parents' perception of prevalence, there was no correlation between state of residence and father's status, $p = 1.00$.

[86] "Circumcision Rates by State 2024."

Figure 25

Father's Status vs Perception of Prevalence



** = significantly different*

The correlations between father's status and the other variables in the study show that a father's circumcision status may impact his family's decision not only because parents want their sons to be like their fathers, but because the father's contributes to or reinforces his and/or his co-parent's beliefs about the practice's prevalence and medical effects.

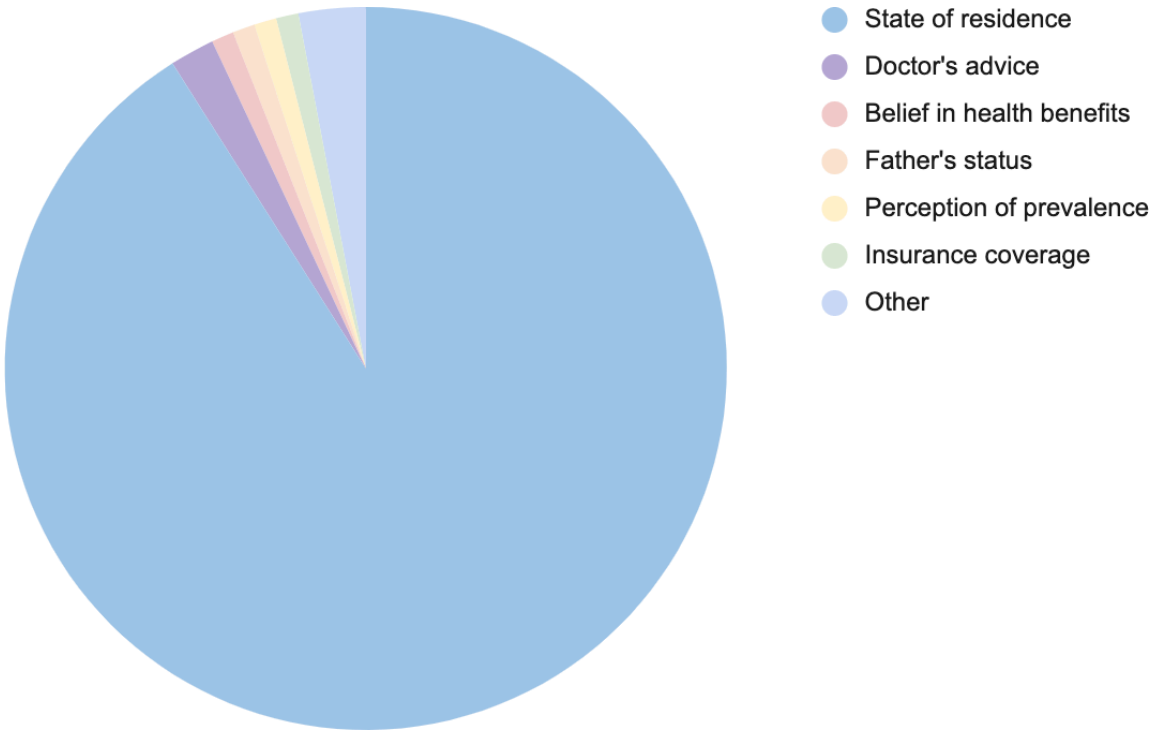
Regression Test Results

Since there were many statistically significant correlates of parents' circumcision decisions and some of the correlated variables were also correlated with each other, I had Stats iQ run a relative importance regression to assess the degree to which each of the correlated variables explain the variation in circumcision choice. According to Qualtrics, "Regression shows you how multiple input variables together impact an output variable... Relative Importance is a modern extension of regression that accounts for situations where the input variables are correlated with one another, a very common issue in survey research (known as "multicollinearity")." As an example, the website explains that "If both the inputs 'Years as a customer' and 'Company size' are correlated with the output "Satisfaction" and with each other, you might use regression to figure out which of the two inputs was more important to creating 'Satisfaction.'" Accordingly, I used a relative importance regression to see how all of our different input variables (i.e., father's status, belief in medical benefits, insurance coverage, state of residence, perception of circumcision's prevalence) account for the variation in parents' decision of whether or not to circumcise, given that some of them also correlate with each other.

The results were as follows: The state in which the parents live explained 91% of the variation in their circumcision decision; the participants' perception of what decision their medical providers wanted them to make explained 2% of the variation in their decision; whether or not the parents believed that the procedure has significant health benefits explained 1% of the variation; the father's circumcision status explained 1% of the variation; the parents' perception of what percentage of American boys are circumcised in infancy (more or less than 50%) explained 1% of the variation; and whether or not the procedure was covered by their health insurance explained 1% of the variation.

Figure 26

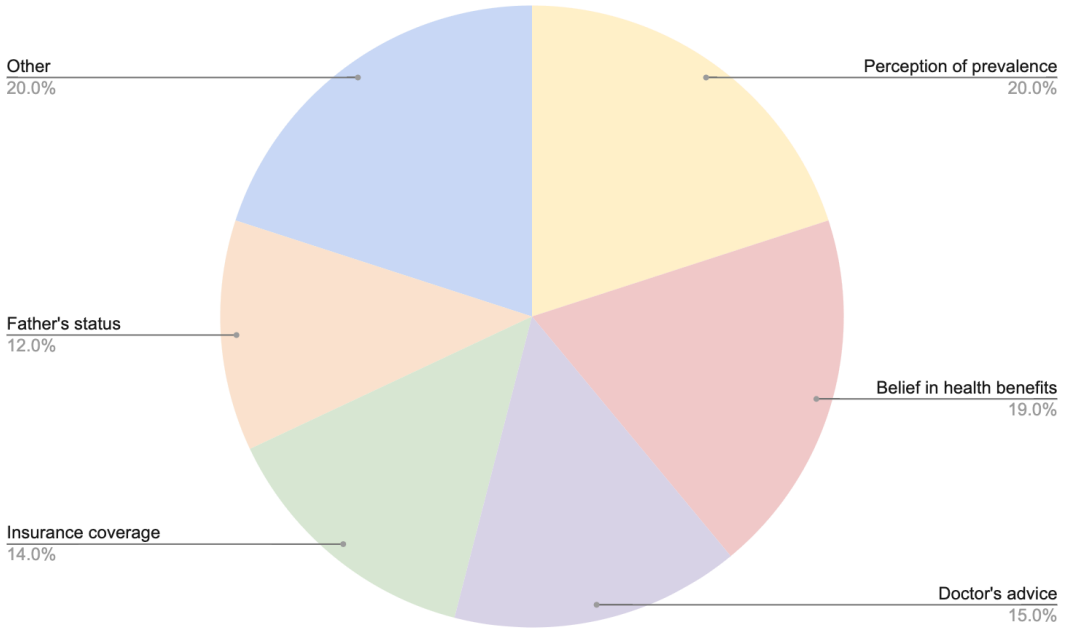
Regression of Variables' Predictive Power in Circumcision Choice



Since state of residence accounted for such a large proportion of the variation, I then removed it from the equation in order to better understand how the non-state variables compare to each other. The variation in circumcision decision was now accounted for as follows: The parents' perception of what percentage of American boys are circumcised in infancy (more or less than 50%) explained 20% of the variation in their circumcision decision; whether or not the parents believed that the procedure has significant health benefits explained 19% of the variation; the participants' perception of what decision their medical providers wanted them to make explained 15% of the variation; whether or not the procedure was covered by their health insurance explained 14% of the variation; and the father's circumcision status explained 12% of the variation.

Figure 27

Regression of Variables' Predictive Power in Circumcision Choice, Without State of Residence



Limitations

Though we took many measures to ensure the integrity of our data (i.e., the request for honest answers, double birthday verification, and an attention check question), it is still possible, as with nearly all online surveys, that some respondents made it through without truly meeting the participation criteria or providing honest answers. To overcome this limitation, future researchers may seek to conduct a similar study in-person with parents at pediatrician's offices or child care centers across the country. This was not possible with our limited time and budget, and our desire to get a wide variety of parents from across the country.

Another limitation of this dataset is that, though the sample was much larger and broader than most other similar studies, when compared to the intended population (American parents with sons under 5 years old), the sample size is still very small. This was particularly apparent in the correlational tests that included the "state" variable, because many states had too few participants to yield significant results, and some states didn't have any participants at all. To overcome this limitation, future studies should aim for a much larger sample size, with a significant number of participants from every state. Alternatively, future researchers could divide the country into different "regions" with similar cultures and rates of circumcision, and obtain a significant number of participants from each region. As an example, since circumcision was popularized in America largely out of an attempt to prevent masturbation, future studies could divide the country into regions that have different relationships with "purity culture." This kind of breakdown was beyond the scope of this study.

Discussion

The data from this survey adds nuance to the understanding of what factors facilitate the perpetuation of infant circumcision in America. The results reaffirmed the findings of past studies, which showed that "hygiene," "infection prevention," and "the father's circumcision status" are commonly-cited reasons for parents to choose circumcision.[87] However, this study took a new approach by also running correlational tests, which revealed key players that could not have been seen in the previous studies, as they only measured descriptive statistics based on parents' self-reported reasons for making their decisions.

First, the data showed that the popularity of circumcision in a person's state, as well as a person's perception of how popular circumcision is in the country as a whole, correlate far more strongly with their circumcision decision than does the status of the father. The fact that parents' state of residence and their perception of circumcision's prevalence correlate so strongly with their choices exhibit that broader social norms (beyond the family unit) may impact people's thinking about the topic. However, the father's status is correlated with respondents' perception of the procedure's prevalence across the country as well, showing that familial customs may also impact people's perceptions of norms on a broader scale.

This study was also the first to assess parents' factual knowledge about circumcision. In doing so, it revealed not only that many parents have major misconceptions about the practice, but that some of these beliefs correlate significantly with whether or not parents choose to circumcise. In support of other studies in which parents self-reported that they chose to circumcise in order to prevent infections, this study revealed that belief in medical benefits was a statistically significant

[87] Rediger and Muller, "Parents' Rationale for Male Circumcision";
Sardi and Livingston, "Parental Decision Making in Male Circumcision";
Spense et al., "Why Are We Cutting?"

correlate of circumcision choice. But the fascinating new-found nuance to this is that parents' beliefs in medical benefits were *not* correlated with whether or not they felt that their doctors advised them to pursue the procedure. While medical provider advice *was* correlated with parents' overall decisions in its own right, parents' beliefs about circumcision having medical benefits were instead correlated with whether or not the procedure was covered by their medical insurance, and whether or not they or their child's father were circumcised. These correlations show that while medical misinformation and doctors' opinions may play a role in the continuation of the practice, insurance policy and familiarity with the procedure may also enable the decision, likely via the reinforcement of misconceptions pertaining to its medical usefulness.

Though the correlational test results from this survey cannot be interpreted as "causes" of circumcision's continuation, they do provide ample evidence that various factors relating to social norms (i.e., local prevalence, perception of prevalence, familiarity with circumcision, etc.) as well as inflated beliefs in medical benefits are at least highly related to parents' decisions. These discoveries guided the conversations in the follow-up interviews, which I discuss in chapter 3. The implications of the study's findings, including how they can be used to provide a more concrete answer to my research question, are discussed in chapter 4.

Chapter 3: Interviews

This chapter discusses the follow-up interviews that were used to build on the survey data. I begin with a brief overview of the interviews and their key findings. I then provide a detailed description of my methodology, followed by short summaries of each of the six interviews. Next, I discuss the three main patterns that the interviews revealed regarding parents' decisions (misinformation, social pressure, and inertia), including how they add context to findings of the survey. I conclude the chapter by summarizing how these findings fit together and provide insight into answering the research question.

Overview

After analyzing the data from the 215 survey responses, I conducted interviews with a subset of the respondents to gain an even deeper understanding of what factors influenced their thinking about whether or not to circumcise their sons, with the same ultimate goal of understanding why infant circumcision persists at such high rates in the United States. I interviewed eight parents from six families. The participants hailed from multiple states and cultural backgrounds, giving great new insights into the role of cultural norms in the continuation of the practice.

The interviews revealed three major themes that contributed to parents' decisions. First, they showed that parents tend to have a severe lack of factual knowledge about the procedure. Second, the interviews revealed that parents from some regions and backgrounds experience direct shame and pressure from their families and communities to ensure that they follow the norm of circumcision. Some parents merely *perceived* that there was an expectation for their sons to be

circumcised, even if they had no personal interactions to confirm whether or not this was the case. Lastly, some parents felt a sense of indifference or nonchalance surrounding the topic, which typically resulted in their decision being determined by norms and inertia (i.e., whatever was most familiar to them, made out to be easiest in their environment, and/or preferred by those who they trusted).

Method

Participants for these interviews came from the survey that was discussed in the previous chapter. At the end of the survey, participants were shown a short blurb about the interview opportunity, and asked to provide their email address if they were interested in learning more about how to participate. 147 out of the 215 survey participants offered their email addresses to indicate their interest. I then filtered down the candidates based on the particular goals for the interviews; in order to be eligible, the parents had to have given either a 0 or a 1 for the involvement of religion in their decision (meaning that religion was not a strong factor in their decision), and they had to have reported that their youngest son did not have any medical conditions (such as phimosis or recurrent UTIs) that impacted their decision about whether or not to circumcise him. Additionally, in order to prevent recall bias, the parents had to either A) only have one son, or B) only have had one son since switching their decision. For example, they could have had one intact son, but then decided to circumcise their most recent son. This ensures that the participants made their current decision within the last five years, and that they do not have any memories about making the same decision for other sons, which could interfere with their recollection of the process.

After narrowing down the candidates based on these criteria, I emailed a few parents at a time to schedule their interviews. Every survey respondent who was qualified and interested in

participating received an email offering them the opportunity to do so between January and February 2024. The email reminded them about the details of the study, had an informed consent document attached, and included a Calendly link to sign up for a spot. The Calendly link asked parents to confirm their youngest son's date of birth and circumcision status, and also asked if their child's other parent would be joining the interview. Each parent who participated would receive a $25 Visa gift card as compensation for their time and contributions. After signing up for a spot, Calendly sent the participants a calendar invitation that included the Zoom link for their interview.

I emailed a total of 57 parents, 10 of whom signed up for a spot. Of the 10 who signed up, two were disqualified because the date of birth that they put for their son in the interview sign-up form did not match the date that they put in their survey response. Two others out of the 10 were not able to make it to the meeting that they signed up for. This left a total of six interviews, two of which included both the mother and the father, making for a total of eight participants. The table below shows demographic information for each of the parents, along with the alias name by which they will be referred to in the rest of this paper.

Table 4

Interview Participants' Key Information

#	parents' aliases	type of parent	sons' status	parents' race / ethnicity	state of birth / residence	% circ. in state
1	Valerie	mother	N	White	CA, UT, NM	23, 33, 47
2	Megan	mother	N	White	WI	81
4	José* & Sofia	father* & mother	N	Hispanic or Latino & Black or African American	FL	31
5	Jane	mother	N, Y	Black or African American	FL	31
3	Katie	mother	Y	White	TN	74
6	Lainey* & Ben	mother* & father	Y	White	RI	75

 # = the order in which the interviews were conducted

** indicates which parent was the original survey participant, who signed the couple up for the interview*

Y = did circumcise, N = did not circumcise

color code in the state prevalence column: 0 - 33%, 34 - 67%, 68 - 100%.

Once the parents logged onto the Zoom, I thanked them for joining, and then read them a verbal informed consent document. After receiving their consent to continue with the interview, I began recording the meeting and asked the questions in the interview protocol. This protocol can be found in the appendix. The script was adjusted slightly for each interview, based on the participants' survey responses, and based on the conversations with the parents before them. Each of the interviews took between 20 and 45 minutes. As soon as each interview ended, I ordered a Visa gift card to be sent to the parents' email addresses.

During the first interview, the mother expressed an interest in learning more about circumcision, and asked if I could send her resources about the topic. This desire was echoed by the majority of the parents I interviewed. I ended up offering resources to all of them, and they were all interested in receiving them. All parents received this blog post I wrote which summarizes the anatomy, history, medical effects, and cultural considerations of infant circumcision.[88] I also sent additional resources to some parents depending upon the topics of our conversation and what specifically they were interested in learning more about. Some parents received this WiseVoter link to learn about the prevalence of circumcision across states; some parents received this Mayo Clinic link or this Healthy Children link to learn about how to clean their sons' penises; and some parents received peer reviewed research papers.[89] These resources were sent to the parents via email directly after their interviews ended. The emails also thanked the parents for their participation and confirmed that their gift cards were on the way.

Results

Interview Summaries

Valerie — California, did not circumcise

Valerie initially wanted to circumcise her son because she'd never seen or heard of anyone being uncircumcised. Interestingly, she admits that most people don't discuss this—it was just a general impression. A few weeks after finding out that she'd be having a son, she and her fiancé

[88] Miller, "What The Heck To Do About Your Son's Foreskin."
[89] "Circumcision Rate by State 2023," Wisevoter;
Earp, "Cultural Bias in American Medicine";
Gollaher, "From Ritual to Science";
"How to Care for Your Baby's Penis," HealthyChildren.org;
Morgan et al., "Decision-Making Regarding Newborn Circumcision";
"Uncircumcised Penis - Mayo Clinic."

(who is circumcised) discussed the topic and figured they would circumcise their son because "that's just what people do."

Valerie was aware that circumcision is more popular in the US than in other countries. She thinks this may be because people in the US are "more vain," and therefore care more about how their genitals look. She was not aware of any medical benefits that may be associated with circumcision. She did not talk to anyone else about the topic before her son was born, and did not attempt to learn any more information. No doctors ever spoke to her about circumcision before her son was born, either. However, after her son's birth, her pediatrician and an infant heart specialist suggested that the couple should not circumcise their son because he had low oxygen levels, and they viewed circumcision as an "unnecessary cosmetic procedure" that could "cause more trauma" to the already-struggling newborn. The couple took their advice and did not circumcise the son. Looking back, though, Valerie feels like the doctor had "his own reasons" for not wanting to do the procedure.

Despite living in states where circumcision is not the norm (23% to 47% prevalence), Valerie now wishes that her son had been circumcised, because she doesn't want him to "look different from all the other boys in the locker room." She does not have any reasons for regretting their decision other than wanting him to fit in.

Valerie's advice for doctors is that they should give parents something to read about circumcision before having them make their choice. She suggests that this document should include information about the pros and cons of the procedure, instructions for how to clean circumcised and uncircumcised infants, and statistics on how many people do versus don't circumcise their sons. Her desire for statistics on circumcision's prevalence highlights that social

norms were important to her in making this decision, despite the fact that she did not have any social interactions with her friends, family, or community regarding the topic.

Megan — Wisconsin, did not circumcise

Megan always knew that if she had a son she would not want him to be circumcised because it is an "unnecessary cosmetic procedure" that "causes pain," and she believes that babies should not be subjected to that. Megan came to this view based on her own online research of the topic, through which she found a slide show that depicted how the procedure is performed. Megan expressed that ever since then, she was afraid to have a son because she didn't want to have to make that decision for him.

Megan's mother and partner (the child's father) strongly disagreed with her view. Her mother felt like everyone in her time was circumcised, and she didn't want the boy to be made fun of by other boys or future sexual partners. Megan's partner felt that circumcision is "just a normal society type of thing," and that, since he got circumcised, "why shouldn't [his son]?"

Megan continued to feel torn over the decision throughout her pregnancy, as family members and medical providers asked her multiple times if she was sure about her decision. Her doctor and nurse gave her a pamphlet and told her about the pros and cons after she had already told them that she did not want to pursue the procedure. They continued to 'reassure' her that it would be fully covered by insurance, and they told her that uncircumcised boys are "a lot" harder to keep clean, and therefore face "a lot" more risk of penile cancers, STDs, and UTIs. None of the information that they provided included data or statistics. This led Megan to feel confused, because her own research on kidshealth.org as well as conversations with other people had confirmed her belief that circumcision is not medically necessary, and that uncircumcised boys can be totally

healthy “just like anybody else.” Megan was finally sure that she would not circumcise her son once she held him for the first time and saw how small he was.

When reassured in the interview that penile problems are rare and she was correct that her son is unlikely to be less healthy as a result of being uncircumcised, Megan became emotional. She felt like everyone except her pediatrician had shamed her for her decision no matter how many times she had reiterated that she didn’t think circumcision was necessary.

Megan’s advice for doctors is to provide parents with statistics so they can see that, while there are correlations with certain health conditions, circumcision does not drastically improve boys’ health. To other parents, she says, “Trust your gut. It's great to know the risks and benefits, but ultimately it's your decision. People will try to persuade you to go one route, and if that's not comfortable for you, stay on your ground. You made the right decision.”

José & Sofia — Florida, did not circumcise

Before having a son, José “wasn’t against [circumcision], but [he] had reservations,” because he himself was not circumcised. His wife, Sofia, shared that she doesn't know if her brother or father are circumcised, because “in Latin American culture it's not a big deal. It's a free thing to do. It's every parent's decision.”

To make their own decision, while they were pregnant with their son José and Sofia researched online to learn about both the religious and medical implications of circumcision. José recalls specifically that they looked on Web MD. José admits that since they already were leaning towards not circumcising, he mainly remembers the cons of circumcision, more than the pros. However, their main takeaways were that there’s no strong evidence that it’s better to be circumcised. Sofia remembers learning that circumcision may prevent some “sexual diseases and

UTIs," but points out that José has never had an issue with those things, so this didn't seem to be an important consideration—they would just need to guide their son in terms of health and hygiene as he grew up. José shared his opinion that being circumcised would be *less* hygienic, because it would leave the head of the penis exposed without any protection from germs. Sofia disagreed. The couple confirmed that they felt a sense of unclarity and confusion regarding the information that they read about hygiene.

Due to the couple's perception that circumcision lacks significant benefits, they wanted to spare their son from the pain of the procedure, and allow him the opportunity to make the decision for himself when he's old enough. José shares that, based on his own experience, the son will likely not choose to get circumcised in adulthood; he himself considered getting circumcised as an adult for a combination of religious and medical reasons, but ultimately decided it was not necessary.

No doctors discussed circumcision with the couple until after their son was born, at which point they simply asked if they wanted to do the procedure, without providing any information. No one else ever discussed the topic with them. Sofia feels that this is mainly because it's taboo to talk about anything related to sex in their culture.

Neither parent had any idea of why circumcision became popular in the United States. They both believed that less than half of boys in the US are circumcised because it's not spoken about a lot. Sofia also felt it would be unpopular because she feels that most parents would want to spare their children from unnecessary pain. However, they acknowledge that they only know how circumcision operates within their own culture, and that the norms around it are likely very different in other cultures. José explained that these different cultural norms are probably the main reason why many other parents choose to circumcise. Sofia believes that education probably plays

a large role in people's decision in that educated parents would be more prepared to make this decision, though she doesn't feel that education would necessarily favor one decision over the other.

Both parents wish that their prenatal doctors or parenting class instructors had sat them down to educate them about the pros and cons of circumcision. Sofia articulated that it's important to educate boys on the topic so they understand how to take care of their genitals, why their parents made the decision that they did, and that they can choose to get circumcised in adulthood if they want to.

Jane — Florida, did not circumcise 1st son, did circumcise 2nd son

Jane had always been under the impression that being uncircumcised is very unhygienic and can lead to many "diseases" and "infections," such as "bacterial vaginosis," and "UTIs" unless meticulous cleaning procedures are followed.[90] She reported that she learned this information from a combination of friends and family, online searches, parenting classes, and books and magazines. Jane recalled that she also googled the pros and cons of the procedure while she was on the hospital bed after giving birth to her first son. Despite confirming that she wanted him to be circumcised, the procedure was not able to occur due to scheduling issues. The doctors at the hospital then told her that in order to clean his penis and prevent infections, Jane would need to roll back her son's foreskin and swab it with vaseline every day.[91] She said that if a boy is uncircumcised and doesn't perform this cleaning procedure, "then boom. Infections. It's gonna happen. So, to cut down infections, circumcise your kids."

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[90] Note that bacterial vaginosis is an infection of the vagina; it cannot be acquired by biological males.

[91] Note that this goes against medical advice. See source below.
"How to Care for Your Baby's Penis," HealthyChildren.org.

In order to avoid having to perform these cleaning procedures on her second son, Jane made sure to have him circumcised. She recalled that her doctor supported this choice, saying to "go ahead and do it" because it prevents infections. She admits that if they had given her more information, she may have made a different choice. But from what they told her, she believed that infections are "very common," in uncircumcised people, and that circumcision is "98% effective" at preventing them in "clean people." The doctors also told Jane that the circumcision would be covered by her insurance, which strongly reinforced her decision. She shared that if it had not been covered, she probably would have let her son decide if he wanted to get circumcised and pay for it himself when he got older.

Jane didn't know why circumcision became popular in the US, but guessed that 62% of American males are circumcised. She was aware that other countries have varying rates, but was not aware of variation within the US. She believed that in some other countries circumcision is "required." When asked why she feels so many parents in the US circumcise their sons today, Jane said "pressure." Though she reports her own primary reason as infection prevention, she recalls that her mom and other family members had told her "you better get [your son(s)] circumcised" because uncircumcised boys can be "smelly." This highlights the role of social pressure and stereotypes in her decision. She noted, however, that from her experience, her uncircumcised son has never seemed smelly or unclean.

When informed in the interview that UTIs and penile infections are actually very rare in boys and that circumcision doesn't often prevent them, Jane was very surprised. She wished that she had been given materials to read about the pros and cons well in advance of having to decide for her sons. She believes that her doctors didn't provide more information because they were "in a rush," but that this really impacted her choice. By the end of the interview, she was calling

circumcision “little people torture,” expressing regret for making her decision based on false impressions about infections and hygiene. Her closing thought was, “I just think we all need to be more educated about this. Be pro-choice, and pro-decision,” expressing the importance of parents doing their own research and making active choices rather than letting others pressure them. She feels that this is particularly important so that parents can educate their boys about their anatomy and the decision that was made for them when they get older. Jane directly asked me to send her resources about circumcision at the end of the interview, so that she can make a more informed decision if she has another son in the future.

Katie — Tennessee, did circumcise

Katie felt like when it came time to make her circumcision decision, she was relatively indifferent—she was willing to do whatever her husband and doctor recommended. Though they did not provide any concrete reasons, her husband, doctor, and mother all wanted her to “go ahead and do it.” Her husband said, “it’s just what people do.” Her mother said the same, and also that circumcision prevents bacteria from building up and causing infections (though she didn’t seem to know which infections). The doctor said to do it without giving any reasons at all. Katie says that he seemed like he was in too much of a “rush” to provide any in-depth information. Regardless, hearing the same rhetoric from all of these trusted people in her life made Katie feel like “surely there’s a reason” why circumcision is preferable. Her own research online, however, gave her the sense that “there's been no actual evidence to suggest that's actually the case.” Katie shared that for her, this made the decision rather difficult. In contrast, her husband “didn't really waver. He was like, ‘no, we should just circumcise.’” She did not know at the time that the procedure would be

covered by insurance, but she says that when she learned that after the fact, it made her realize that circumcision is definitely the norm.

Ultimately, Katie went along with her mother, husband, and doctor's suggestion. A week later, though, a conversation with her friend who was also a mother and a nurse made Katie realize that her decision was made mostly out of "peer pressure," and that conforming to the aesthetic norm is the main reason why circumcision is so popular in the US. Katie confided, "especially in places like where I live in the South, [following norms] is very, very, very much do or die." She wishes she had gotten more concrete information from reputable sources, and that she had trusted her intuition when she realized that there doesn't seem to be a strong reason to circumcise. She says that if it were totally up to her (without any pressure from her mother, husband, and doctor), she would not have chosen to circumcise her son. If she has another son, it will be a very difficult choice for her, because although she now feels confident that circumcision is not necessary, she wouldn't want her sons to be different from each other. Her advice for other parents is to "ask questions," and when others offer their opinions, challenge them by asking for more information.

Lainey & Ben — Rhode Island, did circumcise

Before having a son, Ben didn't have any thoughts about circumcision other than knowing that he was circumcised. Lainey had heard that most parents make their sons have the same circumcision status as their fathers, and she wanted the same for her son. Though it took some probing to understand why this would be valuable to them, she eventually explained that it would be important for him as he starts potty training, because he will be able to see whether or not his penis looks similar to his father's. Ben said that he, too, wanted his son to have the same circumcision status as he did, though he does not recall ever thinking about if his genitals looked

similar to his own father's. Lainey also sensed that it was a "gym room taunt" if someone was uncircumcised, but Ben didn't recall that ever happening when he was growing up.

Lainey's OB brought up circumcision and gave her a form with an overview of the procedure in her third trimester. However, she doesn't remember what the document stated as the pros and cons of the procedure because she already knew that they wanted to have it done. She says, "I felt informed enough, [and] wasn't really interested in knowing more." Though she would have read more information if it had been provided, she doesn't feel like any information could have changed their decision. They both felt that the decision was easy for them.

During the interview, neither parent was aware of any medical reasons for doing a circumcision, but Lainey had heard that it's more hygienic, which "maybe [prevents] infections." She says that her doctors did not seem to have a preference either way. The couple found out after the fact that the circumcision was covered by their insurance. Thinking back, Lauren says the fact that it's covered makes circumcision an "easy" choice. Neither parent had any ideas about why circumcision became popular in the US, but Ben guessed that about 60% of American males are circumcised, and Lainey guessed 50%. They both said, though, that this perception did not affect their own decision at all. They believe that circumcision is more popular in the US than in other countries because it's covered by insurance, and because it's become popular in our culture. They believe that the reason why parents continue to circumcise is "familiarity."

Towards the end of the interview, Lainey recalled a conversation with a couple who had kids 5 years before her. This couple had been much more on the fence about circumcision because they didn't know if it was necessary, and they wanted their sons to be able to decide for themselves when they got older. Hearing this did not impact Lainey's own thinking about the topic.

Lainey feels it's important for doctors to be open to conversations and answering questions, but to not try to sway their patients' decisions. She also thinks it's important for boys to know that all boys are different, and to understand the different sides of the topic. Accordingly, she's open to talking to her son about circumcision if he's curious about it when he grows up. Ben shares, though, that he never had a desire for any more information about the topic. He said simply, "I didn't need the extra skin I guess."

Major Themes

In analyzing the data from the six interviews, I noticed three main themes that provide insight into what factors drove the parents' decisions: misinformation, real or apparent social pressure, and indifference, which typically resulted in the decision being determined by inertia—that is, they followed the decision that they perceived to be popular in their community, that was already familiar to them, and/or that their trusted confidants suggested.

Misinformation

As exhibited by the survey data, many parents have an extreme lack of accurate, concrete information about circumcision. Despite that, many respondents still *believed* that they received enough medical information to make a circumcision decision. In the sample of interview participants, Valerie, Megan, Jane, and Lainey all answered "probably yes" to that survey question, while Katie and José selected "probably not." However, during the interviews, it became clear that none of the participants really had any concrete information about either the medical effects or the prevalence of the procedure; some parents, like Megan and Jane, were led to believe that being uncircumcised is very likely to cause penile infections, while other parents, like Valerie and Lainey, feared that their sons would face bullying if they were not circumcised, because from their

perception, "everyone" they knew was circumcised. While some parents (Megan and Lainey) did receive information and/or materials from medical providers in an *attempt* to educate them on the topic, not a single interview participant received data regarding how effectively circumcision prevents any particular medical complications, what other options are available to prevent those conditions, or exactly how popular the procedure is. This indicates that doctors may not be providing parents with sufficient information to support them in making autonomous and informed decisions; as discussed in chapter 1, that would require them to be accurately informed about the "risks, benefits, and alternatives of a given procedure" before moving forward.[92]

With little education from their doctors and loved ones, many of the interviewees turned to the internet to learn more about circumcision. They often described that their intention during these searches was to assess whether or not circumcision is "necessary." Megan, Katie, José, and Sofia all expressed that they did not want to go through with the procedure unless it was "necessary," because they did not want to subject their sons to unnecessary pain or body modification at such a young age.

Interestingly, parents who turned to the internet for more information did not always end up in the same place: For Jane, internet searches (wrongfully) confirmed her belief that uncircumcised boys are extremely prone to penile infections, thus necessitating circumcision; meanwhile, for Megan, Katie, José and Sofia, the internet confirmed their suspicions that the procedure *isn't* really "necessary," and that uncircumcised boys usually remain healthy. This confirms the findings of the 2021 study, "Decision-Making Regarding Newborn Circumcision: A Qualitative Analysis," which found that "Those parents who sought additional information from outside sources did not change their original decision. Parents had a tendency to search for and interpret information in a way that

[92] Shah et al., "Informed Consent."

confirmed their preconceptions."[93] Essentially, in searching for more information about circumcision, parents tend to exhibit strong confirmation bias, rather than open mindedness and a true desire to learn more. This was perfectly verbalized by José, who admitted that since he and Sofia were already leaning towards not circumcising their son, his recollection of their searches mostly included the cons of circumcision, and not so much the pros.

The lack of factual knowledge about circumcision is concerning because, as the survey results showed, parents' belief in medical benefits and their beliefs about the prevalence of the procedure correlate highly with whether or not they choose to circumcise. Perhaps more importantly, though, the interviews revealed that the lack of common knowledge is also a cause for concern because it can lead to negative interpersonal experiences for the parents; the families of Megan, Katie, and Jane all used forms of shaming, stereotyping, and/or fear mongering to try to convince the soon-to-be mothers that if they did not circumcise their sons, they would be unhealthy, undesirable, and/or "dirty" and "smelly." When Megan and Katie pointed out to their mothers and spouses that these stereotypes contradicted the findings of their own online research, they experienced familial conflict—their mothers and spouses were unwilling to learn new information that contradicted their long-held beliefs about the importance of circumcision and the superiority of circumcised boys. This brings us to the next pattern: social pressure.

Real or Apparent Social Pressure

Many of the parents who I interviewed expressed that cultural norms and social pressure played a major role in their decision-making process. All of the interviewees who believed that circumcision was the norm in their community experienced some form of social pressure (either direct or implicit) to follow that norm, even if circumcision was *not* actually the norm in their area.

[93] Morgan et al., "Decision-Making Regarding Newborn Circumcision."

Jane (a Black mother from Florida) faced extreme and direct shaming and pressure, with various friends and family members telling her that uncircumcised boys are “dirty,” “smelly,” and experience “a lot” of infections. When asked why she believes so many parents in the US circumcise their sons today, Jane replied simply: “pressure.” She went on to share that she believes people in her community speak negatively behind each other's backs about boys who are not circumcised.

All of the white parents I interviewed also expressed some form of social pressure to circumcise their sons, but for them, the pressure was less based on physical stereotypes like poor health and hygiene, and more focussed on social consequences; they felt pressured to make their sons “fit in”—either with their fathers, their peers, their future sexual partners’ preferences, or some combination of these. For Megan and Katie (white mothers from Wisconsin and Tennessee) this social pressure came largely from their own mothers and spouses. Like Jane’s community, Megan and Katie’s mothers seemed to believe that being circumcised was potentially healthier and more hygienic. However, they mostly pushed for the procedure because they feared that uncircumcised boys would be “bullied in the locker room,” or that future sexual partners would find them undesirable. In speaking about her mother, Megan said, “she was trying to push for [circumcision] my entire pregnancy, and even after he's been born, even though I've explained exactly why I don't feel comfortable.” Katie elaborated on the social pressure that she experienced by saying, “especially in places like where I live in the South, [following norms like circumcision] is very, very, very much do or die.”

Interestingly, Valerie and Lainey (white mothers from California and Rhode Island) did not report any direct pressure from their families or communities to pursue circumcision, but they, too, wanted to pursue it so that their sons wouldn’t be “bullied in the locker room.” This aligns with the

findings of Laura Carpenter's 2023 study, which also found that parents worried about uncircumcised boys getting "bullied for being different."[94] Ben (Lainey's husband) noted that he does not recall boys ever being bullied in the locker room based on their circumcision status when he was growing up.

In the 2015 study titled "Teasing in School Locker Rooms Regarding Penile Appearance," approximately 15.5% of the survey participants recalled witnessing locker room bullying as a result of someone either being uncircumcised or having a "'strange' penile appearance."[95] Based on this metric, it may seem that getting bullied for being intact is at least a valid concern. However, it's important to note that this survey was conducted entirely on men at the University of Iowa—a state which currently has the 6th highest rate of circumcision (81%).[96] In all likelihood, in locations where circumcision is less common, being uncircumcised would not be seen as "abnormal," and thus would not be a cause for bullying. For example, though Valerie cited her fear of bullying as the *only* reason for wishing that her son had been circumcised, she lives in a region with circumcision rates well below 50%. This means that the majority of other boys at her son's school will probably also be intact, thus making her fear very unlikely to come true. Regardless, Valerie's concern about this shows that some parents simply assume that circumcision is the norm, and feel pressured to pursue it solely for that reason, even when it's not actually popular in their area.

In addition to feeling pressure for their sons' genitals to "fit in" to the norms and preferences of their broader communities, many of the white parents experienced pressure to make their sons' genitals "match" his father's. Megan's partner, Valerie's fiancé, Katie's husband, and Ben (Lainey's husband) all expressed that they wanted their sons to be circumcised at least in part because they themselves were circumcised. Valerie and Lainey shared this desire with their

[94] Carpenter, "Circumcision Stories."
[95] Alexander, Storm, and Cooper, "Teasing in School Locker Rooms."
[96] "Circumcision Rates by State 2024."

husbands, but Megan and Katie did not see this as a good reason to pursue the procedure. Accordingly, Valerie and Lainey did not feel that their husbands "pressured" them into the decision, but Megan and Katie both did.

A final form of pressure that some parents experienced was the perception that their doctors wanted them to make a certain decision. This supports the survey data which showed that parents' perceptions of their doctors' advice correlate highly with which choice they end up making. (In the survey, those who felt that their doctors discouraged the practice were more likely to not pursue it, while those who felt they received neutral advice were more likely *to* pursue it.)

While some interviewees like Lainey, Ben, José, and Sofia reported that their doctors seemed neutral on the subject, others reported that their doctors clearly favored a certain decision. For example, Valerie and her fiancé, whose son was born with low oxygen levels, were convinced by their doctors to not go through with the circumcision that they had originally planned on having done. The doctors informed the couple that circumcision is an optional cosmetic procedure that is not medically necessary, and that performing it could cause unnecessary trauma to the already-struggling newborn. It was unclear to Valerie whether they gave this advice purely based on the infant's particular condition, or if the doctors had "personal reasons" for not wanting to perform a circumcision. Based on the low rates of circumcision in the state where the boy was born (New Mexico), it is possible that doctors in that area generally prefer not to circumcise, and that they inform parents accordingly.

On the opposite end of the spectrum, Megan, Katie, and Jane's doctors all told them that they should circumcise their sons, despite providing very meager evidence as for why. Katie and Jane both reported that their doctors said (verbatim) to "go ahead and do it." Jane believes her doctor may have elaborated simply that it prevents infections, but Katie recalls that her doctor

didn't give any reasons at all. Both Jane and Katie commented on the patient-doctor power dynamic, noting that as first time mothers, they felt obligated to follow their doctors' advice without questioning their reasons. In contrast to Jane and Katie's doctors, Megan's doctor and nurse did give her materials and information to learn about circumcision. However, none of it included any hard data about the procedure's benefits, and it was given to her after she had already expressed that she was adamantly against having her son circumciseded. Megan reports that "for the most part, [all of the doctors that she saw] had the same views [of favoring circumcision], except the pediatrician. She was very helpful and very understanding, and supported [her] choice."

In contrast to Jane, Megan, Katie, Valerie, and Lainey, who all sensed some form of social pressure (either direct or implicit) to circumcise their sons based on their families', cultures', doctors' and/or communities' beliefs and preferences, José and Sofia (a Hispanic couple from Florida) did not sense any social influences while making their decision. As they described, circumcision is not spoken about in their Latin American culture. This allowed them to simply make the choice that seemed objectively best for their son, without feeling guilt, shame, or pressure to decide one way or another.[97]

The plethora of social influence that was seen in many of the interviews aligns with the results of the surveys, which showed that parents' circumcision decisions correlate highly with how popular the procedure is in their state, as well as how popular they believe the procedure to be overall. Interestingly, though, on the surveys parents did not self-report that social factors were the strongest contributors to their decisions; parents who chose to circumcise selected "hygiene" and "infection prevention" as their two strongest reasons, while "father's status" was number 3,

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[97] This aligns with findings of other studies which found that Americans of Hispanic descent are less likely to support circumcision.
Omole, Smith, and Carter-Wicker, "Newborn Circumcision Techniques";
Spense et al., "Why Are We Cutting?";
Wang et al., "Updated Parental Viewpoints."

"doctor's advice" was number 5, "desire to look like other boys" was number 9, and "desire to be perceived as a good parent" was number 13 (out of 14). In contrast to these survey results, the interviews revealed that family tradition, doctors' advice, perception of other boys' statuses, and communities' judgements of parents were actually rather influential in their thinking about whether or not to circumcise. The interviews explained this discrepancy, though, by revealing that (due to the lack of concrete medical information from their doctors and online sources) it was primarily these social perceptions that *gave* parents their ideas about how circumcision relates to their "most important" factors of hygiene and infection prevention. Therefore, the interviews reveal that although parents don't typically self-report social influences as their main reasons for making their circumcision decisions, such influences often instill perceptions about hygiene, medicine, and social welfare, which *do* tend to govern their decisions. This provides insight as to why norm-related factors correlated so highly with parents' decisions despite their reports that social influences were not their deciding factors.

Indifference and Inertia

The final theme that came up in the interviews was a sense of indifference or nonchalance surrounding the circumcision decision. When parents felt this way about the decision, they typically ended up "going with the flow" of what they were already familiar with, what they perceived to be popular in their community, and/or what their trusted confidants suggested. In other words, they followed inertia.

The pattern of indifference and subsequent following of inertia was shown through reductive language such as "it's just the norm," or "it's just what people do," as well as by deferring the decision onto others. For example, Valerie said, "My fiance was circumcised, so… he

had the same general idea as I did—it's just kind of the thing to do. That's just what you do, you circumcise them." Similarly, Lainey said, "I don't think I thought too much about, like, the cleanliness issues or religious issues. It was kind of just a more familiar procedure than not having it done." Lastly, Katie articulated that since she does not have a penis, she didn't feel very strongly about it, and thus deferred the decision onto her husband and male pediatrician. She said, "I brought it up to my husband, and he immediately just said, 'Well, yeah, we're gonna circumcise, why wouldn't we?'… So I said okay." Later, she said, "I kinda figured I'll go, maybe, with what the doctors suggest, if they have an opinion or any input. So whenever it came up with the doctors… I was like, 'Well, do you think it's better one way or the other?' And [the male pediatrician] said, 'Oh, go ahead and circumcise.' So we did." On the opposite end of the spectrum, José and Sofia expressed that they chose *not* to circumcise in part because that's the choice that they were more familiar with, as José was not circumcised and the topic was never discussed in their families.

For some parents who chose circumcision, "going with the flow" was enabled by external factors such as insurance coverage; Kaite, Lainey, and Jane all expressed that the fact that the procedure was covered by their insurance made it an even easier choice. Katie said the insurance coverage "let [her] know that [circumcision] is definitely the norm. It's definitely more expected." Lainey said, "I think the convenience… being able to get it covered and done in our hospital stay… [made it] kind of all easy for us to decide." When I asked Jane if insurance coverage affected her decision, she said, "Of course, you know it did. Who wants to pay for a procedure like that out of pocket?" When I asked if she would have continued with the procedure had it not been covered, she said, "No, I wouldn't. I mean, I don't know, I can't say 'no I wouldn't,' but…

depending on the circumstances." Evidently, insurance coverage may not have been her end-all and be-all deciding factor, but it surely enabled her decision.

These comments on the role of insurance coverage are helpful in explaining an interesting contradiction in the survey data; while insurance coverage was among the most *highly* correlated factors to parents' decision of whether or not to circumcise ($p < 0.00001$), it was among the *lowest* ranked options when parents self-reported which factors were involved in their decision (number 11 out of 14 for parents who circumcised). This is similar to the social factors discussed in the previous section, which also correlated highly with parents' decisions despite not ranking highly in their self-reports. As in that situation, the comments of the parents in the interviews help to explain the apparent contradiction; the interviews showed that while most parents didn't feel like insurance coverage was the *reason* for their decision, it *enabled* their choice by making it an "easier" decision, and for some parents, it made them feel like it was "normal" and "expected." This role of policy in shaping people's perceptions (and in turn, promoting certain choices) can be referred to as a "nudge," and will be discussed further in chapter 4.

Limitations

As with many interview-based studies, a clear limitation here is the small sample size. Though these interviews did provide very interesting context that can be used to help make inferences about the gaps and apparent contradictions in the survey data, the thoughts and experiences of only eight parents from six families cannot possibly represent all of the considerations of parents across the country. Thus, future studies should aim to interview a lot more parents, with a continued focus on capturing people from a variety of different cultures and locations.

Another limitation of all interview-based studies is that the sample pool can be very self-selecting. In this study, for instance, parents who are very shy or who feel shame surrounding intimate topics are unlikely to sign up for the discussion. In contrast, parents with strong views or more emotional experiences may appreciate an outlet to discuss the topic, making them more likely to sign up. Given that you can't force certain people into participating in studies, this limitation is not really possible to overcome. However, the fact is still important to know, as it is a reminder that when making inferences based on interview data, we may have a biased sample, and thus should leave room for the possibility of considerations that were not captured by our volunteers.

Discussion

The interviews both supported and added nuance to the findings of the survey data. Overall, most of the parents in the interviews expressed a desire to do what was best for their sons. However, their impressions of what was best for their sons varied drastically based on many different factors—their factual knowledge of the topic; the rhetoric that they received from their families, doctors, and communities; and the way that the decision was enabled by broader social systems like local norms and insurance policies. Based on these different factors, some parents felt that what was best for their son was to spare him from unnecessary pain and body modification, while others felt that it was most important to ensure social acceptance. Still others felt it was important to take a measure that may improve their sons' health.

In general, compared to their spouses, mothers seemed to experience stronger senses of guilt, fear, pressure, and confliction when deciding how to make sense of these various factors. The fathers, on the other hand, typically seemed to feel that the choice to circumcise was easy, as

long as that's what they were familiar with. Accordingly, in most cases the mothers had more of a desire to increase their knowledge of circumcision than did their co-parents. The knowledge that they desired typically included A) how "necessary" circumcision is in preventing medical complications, and B) how prevalent circumcision is in their area. These curiosities highlight the fact that circumcision is often viewed as both a medical *and* social decision.

Unfortunately, none of the interviewees in this sample received concrete data about either of these two topics from their doctors or any other sources. Rather, parents typically received personal opinions from their doctors, and occasionally received pamphlets and summaries, but never received the hard data that they craved. Multiple interviewees believed that the reason why their doctors didn't educate them on the topic was because they seemed too rushed or busy to do so.[98] The websites that parents found online typically consisted of very watered-down summaries, which allowed them to interpret the information in whatever way supported their original opinions and intended decision.

In summary, similar to the survey data, the interview data revealed that factors relating to perception of norms and false medical beliefs played notable roles in parents' thinking about the topic, and that silent enablers such as insurance coverage and nonchalant doctors sometimes promoted circumcision by making it an "easier" choice. As exhibited by the sense of pressure and confliction that many of the parents experienced, as well as the confirmation that many parents were not given adequate information to make an informed choice, it's clear that some societal changes may be warranted in order to improve the decision-making process. Chapter 4 will provide suggestions to address these needs going forward.

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[98] To me, this raises questions about whether the doctors had an appropriate level of respect for the importance of their patients' autonomy and informed consent in this matter. See sources below, as well as the chapter 1 section titled "Autonomy: Informed Consent."

Beauchamp and Childress, 102.

Shah et al., "Informed Consent."

Chapter 4: Answers & Interventions

This chapter begins by situating the data from my survey and interviews within the context of a well-established behavioral psychology theory: social norm theory. This allows us to use the survey and interview data to make more conclusive, causal claims about why infant circumcision persists at such high rates in the United States. After answering the research question, I combine the study's results with advice from two behavioral science books to provide suggestions for how to elicit positive change regarding the practice of infant circumcision going forward.

Answering the Research Question using Social Norm Theory

This study used correlational and self-report data to try to understand why American parents continue to choose circumcision at rates that far exceed those of other similar countries. While the study revealed some very strong patterns, these kinds of data cannot provide conclusive "evidence" as to what *causes* people to make a certain decision. Due to the nature of this topic, it's not possible (or ethical) to conduct a scientific experiment that would yield proof of causal relationships—We cannot create a world in which some Americans have no preconceived notions about circumcision, and we should not try to make people choose one decision over another if not with the intention of creating more ethical habits. However, it *is* possible to situate our study's data within the context of an already well-established theory that was created specifically to help understand why questionable practices persist. As such, I will now situate the data within social norm theory. If the data aligns with the theory and we accept the theory to be valid (as many behavioral scientists and other scholars do), then we can use the theory to make more definitive claims about what causes infant circumcision to persist at such high rates.

Social Norm Definitions & Diagnosis

In order to understand social norm theory, one must be familiar with the following terms and concepts.

Reference network: "The network of people whose behavior and expectations matter to the decision maker," such as friends, family, and doctors.[99]

Factual beliefs: What someone believes to be a fact about a topic.

Example: I believe that circumcision is not medically necessary.

Personal normative beliefs: What someone believes is the right way to behave regarding a topic.

Example: I believe that people should not perform unnecessary procedures on children.

Empirical expectations: What someone believes *other* people in their reference network do.

Example: I believe that my friends, family, and doctors support circumcision.

Normative expectations: What someone believes their reference network expects *them* to do.

Example: I believe that my friends, family, and/or doctors expect *me* to circumcise my son.

Table 5

Normative & Social Beliefs[100]

Classification of Normative / Non-Normative & Social / Non-Social Beliefs		
	Non-social beliefs	**Social beliefs**
Non-normative beliefs	Factual beliefs	Empirical expectations
Normative beliefs	Personal normative beliefs	Normative expectations

[99] Bicchieri, *Norms in the Wild*, 53.
[100] This table is based on table 1.2 from page 12 of Bicchieri, *Norms in the Wild*.

The examples above show how sometimes social beliefs and non-social beliefs do not align, causing inner conflict about how to behave. This was seen in our interviews with Valerie, Megan, and Katie: All three mothers understood that circumcision is not medically necessary, yet still experienced confliction regarding whether or not it was the right choice for them, due to their perception that people in their reference network (such as their mothers, husbands, doctors, and/or community members) circumcise their kids and/or expect them to do so. In other words, they all had the same ***empirical and normative expectations***. These shared expectations were also alluded to in the survey, which showed that 19.1% of parents felt that their doctors wanted them to pursue circumcision, 81% of parents believed (correctly) that most other American parents circumcise their sons, and parents who chose circumcision reported significantly higher levels of consideration regarding whether or not other boys would be circumcised.

These markers of social beliefs and expectations are the telltale sign of a social norm. In her book *Norms in the Wild: How to Diagnose, Measure, and Change Social Norms*, behavioral scientist and social norm theorist Cristina Bicchieri writes, "If respondents' normative expectations are mutually consistent, we can be reasonably sure that a social norm exists."[101] Since my survey was able to reveal these patterns, it could be considered a Knowledge, Attitude, and Practice (aka KAP) survey—the kind of survey that's "explicitly designed to uncover these socio-cultural factors that contribute to the target behavioral patterns, be they exclusive breastfeeding, condom use, or otherwise."[102] Future studies could lean more into this by asking more norm-related questions such as, "Do you believe that your friends and family think circumcision is the right thing to do?" or, "Do you feel that circumcision is the expected choice in your community?" However, as is, we already have sufficient evidence to state that the practice of circumcision fits the definition of a

[101] Bicchieri, 97.
[102] Bicchieri, 54.

social norm, because we have evidence that parents have mutually consistent normative expectations about it. Thus, we can now use social norm theory to try to explain why the practice of infant circumcision persists.

Why Social Norms Persist

Throughout their books, Bicchieri and behavioral scientists / economists Richard Thaler and Cass Sunstein explain that social norms are perpetuated by a combination of false factual beliefs, false social beliefs (like normative expectations and *pluralistic ignorance*), and *collective conservatism* (also known as *inertia* or *status quo bias*).

Collective conservatism and *inertia* refer to people and groups' tendencies to "stick to established patterns, even as new needs arise."[103] Thaler and Sunstein call this the "yeah, whatever" heuristic, meaning that people tend to just stick with the choices that have already been made for them by themselves or others.[104] This "yeah, whatever" sentiment was perfectly exemplified in the "Indifference and Inertia" section of chapter 3, which showed that some parents don't think or care much about whether or not their son should be circumcised—they simply go with the flow of whatever they're familiar with or whatever their doctors and families suggest. To illustrate how inertia works, the authors use the analogy of wearing ties. They write,

> Once a practice (like wearing ties) has become established, it is likely to be perpetuated, even if there is no particular basis for it… Of course, a group will shift if it can be shown that the practice is causing serious problems. But if there is uncertainty on that question, people might well continue doing what they have always done. An important problem here is "*pluralistic ignorance*"—that is, ignorance, on the part of all or most, about what other people think. We may follow a practice or a tradition not because we like it, or even think it defensible, but merely because we think that most other people like it.[105]

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[103] Thaler and Sunstein, *Nudge: Improving Decisions*, 58.
[104] Thaler and Sunstein, 35.
[105] Thaler and Sunstein, 58-59 (emphasis added).

The authors later explain that in situations involving strong pluralistic ignorance, we often fall victim to "inertia, or real or apparent social pressure."[106] As Bicchieri puts it, "We may think we are the sole 'deviants' when in fact most people think like us, but we have no way to communicate our real opinions. With no transparent communications, a norm that is only weakly supported, if at all, will endure unchallenged."[107] The part about "no transparent communications" is particularly relevant in the case of genital surgeries because people's genitals are not publicly visible, meaning that no one really knows how prevalent the procedure is in their community or elsewhere.

As with inertia, pluralistic ignorance was perfectly encapsulated in our interviews, in which multiple parents expressed feeling uncomfortable with circumcision, but pursued it anyway due to "inertia, or real, or apparent social pressure," "oblivious to the possibility that they are participants in a group dynamic in which all pretend to support the norm, while in fact all dislike it."[108] Bicchieri shares that this was one of the major problems leading to the perpetuation of female genital cutting. In that situation, providing opportunities for people to see that others shared their disapproval contributed greatly to the practice's discontinuation.[109] Thaler and Sunstien's example of pluralistic ignorance was communism, which also persisted despite a serious lack of support, because people were unaware that most others also disliked it.[110]

Mapping the Data onto the Theory

Based on the foundations of social norm theory and this practice's alignment with its key characteristics and diagnosis criteria, we can conclude that, like other social norms, infant

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[106] Thaler and Sunstein, 86.
[107] Bicchieri, 73.
[108] Thaler and Sunstein, 86; Bicchieri, 34.
[109] Bicchieri, 109.
[110] Thaler and Sunstein, 59.

circumcision likely persists in the United States due to a combination of false factual beliefs, social beliefs (i.e., normative expectations and pluralistic ignorance), and inertia. This fits perfectly with our study's correlational and self-report data, which revealed three main patterns relating to parents' decisions to circumcise: medical misinformation, social pressure, and inertia.

The study alluded to the role of false medical beliefs in perpetuating circumcision via the following data: A) 70.2% of survey respondents believed that infant circumcision has significant medical benefits for American-born males; B) parents who believed that circumcision has significant medical benefits were significantly more likely to choose circumcision ($p < 0.00001$); C) multiple parents who participated in interviews shared that they decided to circumcise in-part because they were led to believe that being uncircumcised is very dangerous; D) interviewees who were aware of circumcision's proposed medical benefits believed that the procedure is far more effective at preventing them than it actually is; E) of the 72% of interview participants who were aware of circumcision's ties to UTIs, 52% believed that the procedure is 300 times more effective at preventing UTIs than it actually is; F) parents who chose circumcision rated hygiene and infection prevention as the two most highly-considered factors in their decision, and they rated these factors significantly higher than parents who did not circumcise.

The study alluded to the role of social pressure in perpetuating circumcision through the following data: A) by far the strongest determinant of circumcision choice was state of residence—parents from states where circumcision is less popular, such as California and Washington, were less likely to choose circumcision; B) parents were significantly more likely to make the circumcision decision that they believe is more popular in the country as a whole (ie, those who believe that less than 50% of boys get circumcised were less likely to circumcise, and vice versa, $p < 0.00001$); C) many interview participants expressed the belief that "everyone"

circumcises their sons, and thus they wanted to do the same in order to prevent social ostracization such as locker room bullying; D) many parents shared experiences where those who were close to them (primarily their mothers, spouses, doctors, and broader communities) pressured or even shamed them into choosing circumcision. Additionally, the interviews suggested that, due to the lack of formal education on the topic, these social influences are primarily what give parents their ideas about the medical and hygienic effects of circumcision, which parents often cite as their primary reasons for choosing circumcision.

The study alluded to the role of inertia in perpetuating circumcision via the following data: A) parents were significantly more likely to choose circumcision if their son's father was circumcised, and vice versa ($p = 0.0001$); B) multiple interviewees directly stated that they did not have strong reasons for making one decision versus the other, and thus ended up making whichever decision was more familiar to them and their families and doctors; C) multiple interviewees shared that insurance coverage enabled their decision by showing them that circumcision is "normal," and making it an "easy" choice. This logic was also supported by the survey results which showed that, despite not being ranked as a top decision-making factor, insurance coverage correlated extremely highly with parents' choices ($p < 0.00001$).

Given this plethora of data that aligns with the pillars of social norm theory, I conclude that infant circumcision persits in the United States because of a combination of false factual beliefs, direct and indirect social pressure (i.e., normative expectations), and inertia.

Suggestions for Positive Change

As discussed in chapter 1, many scholars question the ethicality of continuing to perform routine infant circumcision, as it is not supported by the principles of bioethics. For the purposes of

this paper, I won't go so far as to say that we should immediately ban the practice. Not only is such an extreme change an unrealistic expectation at this time, but there are certainly people who have legitimate reasons for performing it (such as religious and cultural affiliation), and those people should not face legal repercussions, social ostracization, or impedance on their freedom, unless the procedure is proven to cause significant harm. To investigate this matter, I strongly encourage an immediate and robust onset of improved research regarding exactly how circumcision affects sexual functioning, including how the different methods, environments, and tools for the procedure may cause different long-term results.[111]

In the meantime, however, this study has provided some revolutionary new information that can be used to encourage more mindful decision-making *without* impeding on parents' freedom or utilizing shame as a scare tactic (as is often seen in anti-circumcision protests and social media campaigns).[112] Namely, we now know *why* many American parents choose circumcision, how those parents differ from those who do *not* choose circumcision, and what beliefs and experiences tend to encourage each choice. In addressing these questions, we have found, for example, that many parents would benefit from A) improved education about the prevalence and medical benefits of the procedure; B) social change to combat shame and social pressure; and C) insurance policy change, since the current policies seem to reinforce false beliefs, and discourage active decision-making by enabling inertia.

The rest of this chapter combines these findings with behavioral research on social norm theory to provide suggestions for such change. I continue to draw from Cristina Bicchieri's *Norms*

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[111] Doyle, "Ritual Male Circumcision";
Omole, Smith, and Carter-Wicker, "Newborn Circumcision Techniques."

[112] Kennedy and Sardi, "The Male Anti-Circumcision Movement."
The above source writes about the main characters of an anti-circumcision book series, saying "As a character, [Foreskin Man] represents what the author, and what many Intactivists, value: whiteness, heterosexuality (or, at least, heteronormativity), and masculinity, as many of the prior examples have shown. Foreskin Man not only rescues baby (and young) boys from circumcision, he regularly romances their mothers" (11).

in the Wild, which extensively discusses how social norm theory was used to decrease rates of female genital cutting in Africa, and explains how similar tactics can be replicated in other instances of social norms.[113] I also continue to draw from Richard Thaler and Cass Sunstein's *Nudge: Improving Decisions about Health, Wealth, and Happiness*.[114] Particularly, I implement the framework of "libertarian paternalism," which Sunstein and Thaler describe as promoting people's right to choose, while influencing them in a way that will make their lives (or in this case, their children's lives) healthier and better, as judged by themselves.[115]

The outside influence of a "nudge" is necessary here, because as the authors describe, "in many cases, individuals make pretty bad decisions—decisions they would not have made if they had paid full attention and possessed complete information, unlimited cognitive abilities, and complete self-control."[116] This was perfectly exemplified by our discussions in chapter 3; obviously, most parents *want* to do what's best for their children (especially in infancy) and included in this, for many, is the avoidance of causing unnecessary harm or trauma (such as a painful, unnecessary procedure with permanent repercussions). However, understandably, many parents fail to make the decision that aligns with this value of theirs, due to the abundance of false information, the lack of access to true data, the strong influence of century-long social norms, and the echochamber of judgemental opinions. I hope that the suggestions below will allow our society to transition from responding to this issue out of fear, pressure, inertia, and confusion, to doing so with intention, knowledge, confidence, and care. As such, in accordance with the sentiment of libertarian paternalism, I hope that parents will feel more empowered, informed, and in-control,

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[113] Bicchieri.
[114] Thaler and Sunstein.
[115] Thaler and Sunstein, 5.
Thaler and Sunstein cite Van De Veer, *Paternalistic Intervention.*
[116] Thaler and Sunstein, 5.

while making a choice that they will confidently believe supports their and their sons' best interests and wellbeing.

Key Principles

In order to change social norms, we must first promote a "collective change of factual and personal normative beliefs about the practice."[117] In other words, we must make factual data about circumcision's benefits and risks very well known, so people are aware that the practice is unnecessary and potentially harmful. However, when dealing with social norms, "interventions aimed [only] at changing false beliefs often fail" due to the presence of inertia and pluralistic ignorance.[118] Thus, after changing factual beliefs, we must change people's empirical and normative expectations, by showing them that *not* everyone supports circumcision (in fact, many people do not), and accordingly, they should not feel pressured into pursuing it if they, too, are not comfortable doing so. Changing these social beliefs requires both data about the prevalence of the practice (as was suggested by many of the interviewees), as well as open lines of communication to discuss the topic with one's reference network.[119] Lastly, as Sunstein and Thaler discuss, in order to encourage a change, we must disrupt inertia by putting a small obstacle in the "path of least resistance."[120]

The next sections offer a plethora of science-backed suggestions that align with these key principles. Importantly, implementing just one or two of the suggestions will likely not be enough for widespread change. Throughout her book, Bicchieri emphasizes that successful norm change requires multiple modes of attack. This was also supported by our interviews, which illustrated that

[117] Bicchieri, 109.
[118] Bicchieri, 93-94.
[119] Bicchieri, 143.
[120] Thaler and Sunstein, 83.

different parents weigh various factors differently when deciding whether or not to follow a social norm; while Jane may have made a different decision based on insurance coverage alone, Katie wanted hard data and the support of her reference network, and Lainey and Ben likely would not have changed their decision without changes in all three areas (factual knowledge, normative expectations, and inertia). Therefore, the following list should not be taken as a menu from which we might pick the easiest option, but as a prescription of many options that will only work optimally when employed all together.

What the Healthcare Sector Can Do

Remove Insurance Coverage

As discussed previously, removing insurance coverage for circumcision could be a great measure for multiple reasons.[121] First, it can help correct false factual beliefs. As this study revealed, insurance coverage is highly associated with parents' beliefs about whether or not circumcision has significant health benefits. This is not surprising, as the purpose of *health* insurance is to financially assist us in addressing our *health*-related needs. People understand, for example, that health insurance will not pay for other cosmetic procedures, such as botox, nose jobs, ear piercings, or (most similarly) labiaplasties. Therefore, it is only logical for people to infer—even if only subconsciously—that if circumcision is covered by their health insurance, then it must have health benefits. Accordingly, as long as this false belief continues to receive financial reinforcement by supposed health-related programs, it will be extremely difficult for people to understand that the procedure does not in fact improve one's health.

[121] This measure has already been effective in reducing neonatal circumcision rates in certain states. See source below. Navia et al., "State-Level Public Insurance Coverage and Neonatal Circumcision Rates."

Second, as multiple parents mentioned in their interviews, the fact that health insurance covers circumcision makes it seem like a very "easy" and "expected" choice. These are not words that should logically be used in any conversation about performing aesthetic procedures on infants. But as we have discussed, people *like* to do whatever is easiest—they follow inertia, or as Thaler and Sunstein call it, "the path of least resistance."[122] So, if doctors offer circumcision to every parent, tell them that it will be done right in the hospital after the birth, and assure them that it will be fully covered by their medical insurance (as many some doctors do according to our interviews), it *will* seem like an easy choice (aka, the path of least resistance). So, parents might just say, "yeah, whatever."

Sometimes, though, the authors note, a small obstacle is all it takes to "nudge" someone in another direction. This is what they call "padding the path of least resistance."[123] In short, by instituting a small roadblock such as having to actively ask for the procedure, having to pay for the procedure yourself, or having to schedule the appointment for a week after the birth, we can subtly encourage parents to either think twice, or to simply take the *new* "path of least resistance," which would be *not* circumcising. This is exactly what happened with Jane and her first son, for whom the procedure had to be scheduled at a later time, which led to it not getting performed at all. As mentioned in chapter 3, Jane also said that if the procedure had not been covered by her insurance, she does not think she would have had it done for either of her sons. Therefore, removing insurance coverage could be the perfect "nudge" or "padding" against the path of least resistance, at least for some parents. I'm sure this will be great news to the insurance companies, who seem to always be searching for ways out of covering costs.[124] I do truly wonder why so many of them

[122] Thaler and Sunstein, 83.
[123] Ibid.
[124] Only hours after writing this, I received an email about insurance companies no longer covering certain skin cancer treatments, leaving patients with less options for a life-threatening condition.

have covered the procedure for this long, especially given that insurance companies in other countries do not. But alas, that is a question for another paper.

Public Statements with Concrete Data

Even better than silently removing circumcision from the payroll, hospitals and insurance companies could release public statements about *why* circumcision will no longer be financially supported, providing the public with educational "nudges." I recommend that these statements say something such as, "routine circumcision will no longer be covered because it has not been found to have significant health benefits, and therefore is unnecessary to perform on infants." They may even address the fact that, as medical institutions, they are obligated to consider the principles of bioethics, which, in light of current knowledge, do not support performing this practice on people who cannot consent. They should follow this information with concrete data about exactly how prone intact Americans are to penile infections, exactly how effectively circumcision may reduce these risks, what alternatives (i.e., condoms, vaccines, regular washing) can be used instead, and how prevalent the procedure is. These statements would accomplish five goals: strengthening trust in the health care system, providing the factual knowledge that parents crave, changing empirical expectations, changing normative expectations, and shedding light on conflicting values—all of which encourage change in normative behaviors.

First, as Bicchieri found in her co-authored 2016 study about the abandonment of female genital cutting, "trust in formal institutions had one of the strongest correlations with abandonment of harmful practices, such as FGC [female genital cutting], in countries where they were outlawed."[125] I acknowledge that the circumstances of male and female circumcisions are not

[125] Bicchieri and Marini, "Ending Female Genital Cutting."
cited by Bicchieri, 145.

exactly the same—many female genital cutting procedures are extremely invasive and dangerous, leading to harms that are far greater than those of the average male circumcision. However, with an honest and heartfelt statement, healthcare companies could garner increased trust from parents by sharing information that would allow them to spare their children from an unnecessary procedure.

Second, also from Bicchieri, changing false factual beliefs is the first step in changing norms.[126] As we saw in this study, many parents are extremely confused, uninformed, and/or misinformed about this topic, thus clearly lacking the necessary information to make an informed choice. Luckily, as we saw in the interviews, many parents do *want* to know more about circumcision's medical effects, with the express goal of assessing whether or not the procedure is "medically necessary." By providing this information through trusted institutions, we provide the knowledge that parents require to shift their understanding, and therefore, the framework for their decision-making.

In addition to improving parents' *factual* knowledge about circumcision, this statement could also change parents' empirical expectations about circumcision (what they expect others are doing). This can be done in two ways. First, as parents asked for in the interviews, the statement can include information about how popular circumcision is in different areas around the country. This can allow them to see that *not* "everyone" is circumcised. As was the case with Valerie, perhaps even *less* people are circumcised than intact in their area, and learning this may completely change their views. This is in line with other behavioral research, which has shown that people's perception of how popular a behavior is (for example, binge drinking or voting for a certain candidate) strongly influences how likely they are to engage in the same behavior.[127]

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[126] Bicchieri, 115.
[127] Thaler and Sunstein, 65, 67.

Not only can a public statement change factual knowledge and *empirical* expectations through the sharing of data, but a public statement can change *normative* expectations (beliefs about what others think we should do) by opening the door for parents to talk about the topic. As discussed by Bicchieri, open deliberation is a key component of changing normative expectations.[128] By putting this information out in a place where parents know that *other* parents are also seeing it, we combat stigma and encourage people to discuss the topic amongst themselves. This can mitigate the effects of pluralistic ignorance, in turn promoting collective change. Suggestions for deliberation on this topic can be found in the section, "What Anyone Can Do."

Lastly, a public statement such as this could be used to shed light on conflicting beliefs and values. Bicchieri says, "coupled with credible factual information about certain practices, individuals may come to realize that what they do contradicts what they *should* do as mandated by their values and commitments."[129] For example, the behavior of circumcising an infant without medical necessity contradicts the common parental values and commitments of accepting their children as they are, not imposing societal aesthetic norms onto them, and not causing them unnecessary harm or suffering. By educating parents on the fact that circumcision is a medically unnecessary, painful procedure with a painful healing process, medical institutions can shed light on these inconsistencies, thus encouraging parents to take a second look at whether or not performing the procedure truly aligns with their values.

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[128] Bicchieri, 156.
[129] Bicchieri, 160.
Bicchieri cites Diop et al., "Evaluation of a Community Based Education."

Don't Ask Without Facts

Sunstein and Thaler teach us that simply asking people if they intend to do something significantly increases their chances of doing it—particularly if they say that they will do it when they are first asked. This is referred to as the "mere-measurement effect."[130] The theory is supported by studies in which asking people if they intended to vote increased their chances of doing so by 25%, and asking if they intended to buy a car in the next six months increased their chances of doing so by 35%.[131] Accordingly, we can expect that simply *asking* parents if they plan to circumcise will substantially increase their likelihood of doing so.

Another factor to consider here is that, according to another study presented in *Nudge*, patients usually make their decisions about which medical procedures they will pursue during the very first visit in which the topic is brought up to them.[132]According to a previous survey about parental decision-making in infant circumcision, many parents are asked if they plan to circumcise early on in their pregnancy (typically by a nurse), without being given adequate information to base their decision on.[133] Our interviews, too, showed that many doctors asked parents early in their pregnancy if they were planning to circumcise, and none provided thorough information to base the decision on. A few of our interviewees' doctors even used that opportunity to "reassure" their patients that circumcision would be fully covered by their insurance if they chose to pursue it.

Obviously, at this point most parents have not given much thought to the topic of circumcision, let alone taken any time to learn about its medical implications. Hence, if doctors ask patients their intention without first providing them with facts, then they are encouraging their patients to voice and verbally commit to an extremely uninformed decision, likely based only on

[130] Thaler and Sunstein, 70.
[131] Greenwald et al., "Increasing Voting Behavior."
Morwitz, Johnson, and Schmittlein, "Does Measuring Intent Change Behavior?"
cited by Thaler and Sunstein, 70.
[132] Thaler and Sunstein, 92.
[133] Sardi and Livingston, "Parental Decision Making in Male Circumcision."

what they have heard "through the grapevine." If our interviews are any indication, then at this time, most parents' beliefs consist of some combination of: most men are circumcised, most other boys will be circumcised, my family expects my son to be circumcised, now my doctors seems to expect me to circumcise, it's covered by insurance so it's probably popular, and (possibly) being uncircumcised is dirty and causes infections. Understandably, with this common cacophony of stereotypes and misinformation as their framework for the topic, many parents' first reaction is that of course they will circumcise (or, perhaps, "yeah whatever"). Thus, by simply asking parents to share their intention at this time without providing any necessary information, they are being escorted directly down the path of least resistance and into the black hole of inertia.

Based on all of this information, it is my recommendation that doctors should not even ask parents if they want to have their sons circumcised. This silence will act as another small piece of "padding" to the path of least resistance; by not being brought up at all, it is implied that the procedure is neither expected nor medically necessary. Those parents who adamantly want to pursue the procedure for their own reasons can always inquire about it directly. However, as Sunstein and Thaler describe, the number of parents who will do so is likely far less than would otherwise have agreed to the procedure if it were to continue to be actively offered; by switching the default choice to *not* circumcising rather than circumcising, we turn circumcision from an "opt-out" program to an "opt-in" program. Past research has shown that when the default is to *not* have something done, far less people will make the effort to have it done, even if all it takes is asking.[134]

As I learned from Dr. Elizabeth Kim, one of the committee members for this thesis, such an approach is similar to how many pediatricians' offices handle another common cosmetic procedure that's performed on children: ear piercings. Of course, most doctors do not initiate conversations

[134] Thaler and Sunstein, 86.

with parents about if they want the office to pierce their children's ears—especially not in the very first appointment when they tell the parents that they're having a girl. However, apparently many offices will pierce your child's ears if you ask them to (i.e., if you "opt-in"), as it is of course safer to have it done by a doctor than elsewhere.

Employ Thoughtful Choice Architecture

Inevitably, some parents *will* still want to circumcise their children (or at least want their doctors' opinions on the matter), and will thus initiate the conversation themselves. While some parents may already be set on the decision, others may want more information to help them decide (as was shown by our interviews). When this situation arises, it's important for doctors to think critically about how they present their patients' choices. Sunstein and Thaler state wisely that "if you are a doctor and must describe the alternative treatments available to a patient, you are a choice architect… There is no such thing as a 'neutral' design."[135] By this they mean that the way in which doctors present patients with information inevitably impacts their decision. For example, a procedure which is phrased to result in "10 in 100 patients dying within the first six months" will garner far less enrollment than the same procedure that is phrased to result in "90 out of 100 patients surviving for at least six more months."[136] This is because humans are much more averse to losses than they are interested in gains. So to "nudge," we should capitalize on people's loss aversion more than focussing on what they will gain. To apply this to circumcision, doctors can share, for example, that though one in 100 circumcisions may prevent a UTI, *two to four* in 100 may result in complications.[137] This not only presents patients with concrete data about the pros

[135] Thaler and Sunstein, 3.
[136] Thaler and Sunstein, 36.
[137] Iacob, Feinn, and Sardi, "Systematic Review of Complications";
Krill, Palmer, and Palmer, "Complications of Circumcision";
Shabanzadeh et al., "Male Circumcision Complications";
Weiss et al., "Complications of Circumcision in Male Neonates."

and cons, but it makes it very clear that circumcision is not just benign—it is in fact *more* likely to result in a loss than a gain.

Another strong weapon related to choice architecture is vocabulary. For example, consistently referring to circumcision as a "cosmetic procedure," a "plastic surgery," a "body modification," or a "genital alteration" will reinforce to patients that it is *not* strongly supported by health research, and is in fact primarily a matter of aesthetics. This technique was utilized by Valerie's doctors, who successfully encouraged her not to pursue circumcision because her newborn was struggling with low oxygen levels. In contrast, uninformative, dismissive statements such as, "I would go ahead and do it," which Katie and Jane both heard from their doctors, can of course have the opposite effect. The importance of language will be discussed further in the section called "Change the Language."

In summary, in accordance with the framework of informed consent, when discussing the topic of circumcision (or any other medical procedure, for that matter), doctors should address the pros, cons, and alternatives, using careful language, and concrete data to illustrate the efficacy of each option.[138] Additionally, since we know that patients have a tendency to make hasty decisions, we should encourage them to take time to read the research and discuss the information with those whose opinions matter to them (their reference network).

[138] Shah et al., "Informed Consent."

What Anyone Can Do

By now we have established the tremendous role of social perceptions in establishing, maintaining, and combating social norms such as circumcision. Perhaps Sunstein and Thaler put it best when they wrote,

> Most people learn from others. This is usually good, of course. Learning from others is how individuals and societies develop. But many of our biggest misconceptions also come from others. When social influences have caused people to have false or biased beliefs, then some nudging may help... One of the most effective ways to nudge (for good or evil) is via social influence.[139]

We have, of course, seen the evil and misguided sides already, including how even offhanded statements can strongly reinforce people's preferences for circumcision. There also exists, however, the other possibility: capitalizing on social power to *combat* the norms of circumcision. According to Bicchieri, "collective discussion about the norms we uphold" is a quintessential component to norm change, as it allows us to both combat empirical and normative expectations, *and* see how our behaviors "fit with other norms and values that we hold dear."[140] Additionally, for those who may already be questioning whether or not the norm is productive, deliberation can act as a much-needed last straw to prove that others feel the same way, and that acting against the former norm is indeed a safe bet. Thus, I will now provide advice for some stellar social nudges that would be most appropriately and effectively employed via collective discussions with peers and family, rather than through health care institutions.

Change the Language

Continuing with the last suggestion, subtle changes in word choice can significantly impact people's takeaways from a conversation, and in turn, their perceptions of the topic. As discussed in

[139] Thaler and Sunstein, 54.
[140] Bicchieri, 78-79.

chapter 1, the word "uncircumcised" frames being circumcised as the default and is dependent upon the existence of circumcision, when in reality, having foreskin is the natural state. As Brian Earp said, "the AAP does not refer to infant girls' vulvae as "unlabiaplastied."[141] To highlight the incredible power of vocabulary changes in the discontinuation of genital cutting practices, Bicchieri cites a book chapter about the exceptionally successful Saleema campaign in Sudan. She writes,

> The word *saleema* means whole, intact, healthy, and perfect. It conveys the idea that being uncut is the natural, pristine state… Perceiving girls through the 'Saleema lens' functionally disconfirmed the belief that uncut girls are not chaste and pure. Prior to this campaign, the only available word for an uncut girl was *ghalfa*, which carries connotations of dishonor and promiscuity.[142]

Similarly, as was exemplified by the statements of the parents in our interviews, the word "uncircumcised" often has connotations of filth and infection. In contrast, like *saleema*, the word "intact" implies wholeness and naturality. Unfortunately, despite being used by scholars for decades, "intact" has not accumulated much public use beyond the niche "intactivist" movement.[143] However, by using "intact" instead of "uncircumcised," we can all help reframe our communities' thinking about circumcision, thereby encouraging others to rethink whether the procedure is right for them and their children.

Elicit Strong Emotions

Bicchieri professes that "Eliciting strong emotions, like fear and disgust, can succeed at changing people's minds about some activity in lieu of reasoned arguments laced with medical data."[144] Chapter 3 exposed how community members elicit fear and disgust in swaying parents *to*

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[141] Earp, "Cultural Bias in American Medicine."
[142] Bicchieri, 139-140.
Bicchieri cites Hadi, "A Community of Women Empowered."
[143] Bollinger, "The Penis-Care Information Gap: Preventing Improper Care of Intact Boys";
Bossio, Pukall, and Steele, "Examining Penile Sensitivity in Neonatally Circumcised and Intact Men";
Kennedy and Sardi, "The Male Anti-Circumcision Movement."
[144] Bicchieri, 115.

circumcise, by telling them that uncircumcised boys are dirty, get penile infections, face bullying, and will be seen as unattractive by future sexual partners. However, strong emotions can also be used to nudge parents in the opposite direction. While I don't particularly endorse instilling negative emotions like fear and disgust onto our loved ones, Bicchiery argues that media such as photos and videos can have astronomical effects in changing norms. I prefer this strategy over verbal expression of negative emotions, as the media can elicit emotions on its own, without requiring us to shame our loved ones for their views.[145] The efficacy of media in combating support for circumcision was experienced first-hand by Megan, who first developed her anti-circumcision views after seeing a slideshow that depicted how the procedure is performed. This led her to feel deep sadness for the infants who are subjected to such pain so soon after birth, and thus she decided that she would never want to subject her child to the procedure.

In addition to sharing media that will elicit negative emotions, conversations with loved ones can make use of strong *positive* emotions such as reassurance, peace, and compassion. Sunstein and Thaler teach us that "One reason why people expend so much effort conforming to social norms and fashions is that they think that others are closely paying attention to what they are doing." This is called the "spotlight effect."[146] To address this issue, we can provide our loved ones with peace and reassurance by reminding them that we would not judge them for defying the norm, that most people do not experience bullying for being uncircumcised, and that many women report better sexual experiences with uncircumcised partners.[147] This also combats pluralistic ignorance by showing others that we, despite what they may have assumed, do not endorse the social norm of circumcision. Such statements encourage and applaud parents with *positive* emotions for defying the norm, rather than shaming them into sharing our view.

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[145] Bicchieri, 147-153.
[146] Thaler and Sunstein, 60.
[147] Frisch, Lindholm, and Gronbaek, "Male Circumcision and Sexual Function."

Importantly, stating plain facts without an emotional draw is usually not enough to change people's views.[148] For example, saying simply that "many uncircumcised men are glad they were not circumcised" will probably not change any parent's mind. Rather, leaning into our emotions is key. For example, we can illustrate how upsetting it might be for someone to have had this permanent decision made for them by someone else, or, in contrast, how empowering it may be to be able to make this decision for one's self.[149] If possible, emotional pull is even more effective when shared by someone who themselves experienced the situation (i.e., a circumcised man expressing resentment for never being able to decide this for himself, or an intact man expressing gratitude for being able to do so). Thus, if you have a penis, you are particularly well positioned to make use of this technique. This was exemplified by José, who was not circumcised in infancy, and was glad to have had the opportunity to consider the procedure and make his own decision in adulthood.

Highlight Conflicting Values

In addition to the direct utilization of emotions, some parents may also be swayed by a more philosophical approach. As Bicchieri points out, often the reason why we hope to discourage a certain norm is because it is in conflict with our other values. Notice, for example, that though wearing ties is indeed a social norm, there is no significant social movement promoting the downfall of ties, because the behavior is not dissonant with anyone's values (as far as I know). Infant genital cutting, in contrast, does raise such concerns. Luckily, through careful deliberation,

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[148] Bicchieri, 124.

[149] The following study found support for this, stating that "Men who were circumcised as adults or intact men reported higher satisfaction with their circumcision status than those who were circumcised neonatally or in childhood."

Bossio and Pukall, "Attitude Toward One's Circumcision Status."

we can help our loved ones notice how "what they do [or intend to do] contradicts what they should do as mandated by their values and commitments."[150] Here are some examples:

1) Circumcision causes pain without the likelihood of any medical benefits, which contradicts some parents' value and commitment of sparing their children from unnecessary harm and suffering.
2) Infant circumcision precludes a person from deciding for himself how his genitals will look and function, which contradicts some parents' value and commitment of championing bodily autonomy and freedom in reproductive health.
3) Infant circumcision enforces onto children a societal beauty standard, which contradicts some parents' value and commitment of accepting their children as they are, and encouraging body positivity regardless of societal expectations.

Bicchieri suggests that holding deliberation about such contradictions is highly valuable because on their own, people usually do not admit to themselves, let alone attempt to address, the fact that some of their beliefs may contradict each other. However, after being made aware of such inconsistencies, "people are strongly motivated to alleviate them," as is explained by the theory of cognitive dissonance.[151] The author warns, though, that "regardless of the facilitator, there is a risk that those who offer an argument that unearths the inconsistency in a listener's beliefs may be perceived to have a personal agenda, and thus appear manipulative."[152] Therefore, (in line with my previous suggestion,) for the brave souls who elect to take on this feat, I encourage a strong

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[150] Bicchieri, 160;
Diop et al., "Evaluation of a Community Based Education";
Gillespie and Melching, "The Transformative Power of Democracy."
Bicchieri notes that the above source describes "in great detail" how a human rights program used "implicit arguments to let people decide on their own whether to abandon maladaptive practices."
[151] Mercier and Sperber, "Why Do Humans Reason?"
cited by Bicchieri, 156.
[152] Bicchieri, 159.

emphasis on positive emotions such as reassurance and compassion, as well as an avoidance of language associated with shame and judgment. This will help ensure that your discussion mates feel confident that you are truly supporting *their* values and best interests, rather than your own.

Broader Societal Messaging

Bicchieri confesses that though personal discussions can be very effective in changing *beliefs* and *expectations*, changing *behavior* is a bigger beast. She writes,

> Even in the best possible circumstances, when several tools are employed simultaneously to change collective beliefs, behavioral change may be difficult to attain. People will need to be reasonably sure that behavior is effectively changing and, thus, that they are no longer violating the previously accepted norm.[153]

As such, we must institute techniques that clearly show how behavior is changing, and that new social expectations are arising.[154]

Thaler and Sunstein's book includes extensive discussion about how different states and countries did this to increase rates of organ donor registration. One notable example took place in Illinois. The state promoted widespread campaigns to change social expectations by informing citizens that "'87 percent of adults in Illinois feel that registering as an organ donor is the right thing to do" and "60 percent of adults in Illinois are registered."'[155] The campaign also included Myspace links where "concerned citizens" could show their support. Similarly, many programs have decreased energy usage by showing homeowners and tenants that they use more electricity than their peers, and thus are behaving more undesirably and immorally than their peers.[156]

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[153] Bicchieri, 161.
[154] Bicchieri, 109.
[155] Liverman and Childress, *Organ Donation: Opportunities for Action*. cited by Thaler and Sunstein, 182.
[156] Bicchieri, 152.

Through creating these senses of social *and* moral comparison, citizens were led to see not only that their peers expected them to take on a new behavior, but that failing to do so would be viewed as a moral failing. In states such as Washington, Nevada, Arizona, Oregon, California, Florida, Utah, Louisiana, and New Mexico, which all have infant circumcision rates below 50%, I envision a similar strategy yielding excellent results. This would put an end to the pluralistic ignorance that plagues parents like Valerie (who, as a reminder, has most recently lived in California, Utah, and New Mexico, yet still fears that her intact son will face bullying, because she is under the impression that "everyone" she knows is circumcised).

By expelling their false social expectations and pointing out a newly popular moral view, such parents will be enabled to feel pride, rather than fear, in rejecting circumcision. This would mirror the tactics of "successful campaigns for the abandonment of FGC (such as the Saleema campaign)," as they, too, were aimed at both "changing people's empirical expectations about the universality of the practice, and creating new normative expectations about the importance of being uncut."[157] Once already-low-prevalence states have adopted such measures and successfully decreased their numbers even further, surrounding states can begin to take on a similar strategy with messages such as "most citizens *in the west side of the country* believe that circumcising an infant is wrong," or, "most surrounding states have discontinued circumcision, as their citizens believe it is immoral."

As a final idea, if all else fails, we can turn to humor. Sunstien and Thaler point out that creative nudges, like getting a few famous people to do silly things with a silly slogan, can have astronomical effects. This was exemplified by the incredibly successful "don't mess with Texas" campaign, which aimed to end highway littering. The authors write that "within the first year of

[157] Bicchieri, 111;
Hadi, "A Community of Women Empowered."

the campaign, litter in the state had been reduced by a remarkable 29 percent. In its first six years, there was a 72 percent reduction in visible roadside litter. All this happened not through mandates, threats, or coercion but through a creative nudge."[158] So just think: If a bunch of comedians made a television ad in which they went searching all around the world asking, "Where's my foreskin?" would that not get your attention?

Conclusion

This thesis combined a thorough empirical research design with social norm theory to answer the question of why infant circumcision persists at such high rates in the United States, in an effort to encourage more ethical practices surrounding the circumcision decision going forward. It is my hope that the new information and associated suggestions that I've provided will allow our society to transition from responding to the issue of infant circumcision out of fear, pressure, inertia, and confusion, to doing so with intention, knowledge, confidence, and care. As such, in accordance with the sentiment of libertarian paternalism, I hope that the parents of the future will feel more empowered, informed, supported, and in-control, while making a choice that they will confidently believe will support their and their new babies' best interests and wellbeing.

[158] Thaler and Sunstein, 60.
"History," Don't Mess With Texas.

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Appendix

Survey Questionnaire

Check the box below to confirm that you are not a robot.

[I’m not a robot reCAPTCHA]

Thank you for your interest in this study! Please carefully review the document below to learn more.

[link to “Circumcision survey consent document”]

By continuing with this survey, you certify that you meet the participation criteria, you have read the above document, and you consent to participating in the study.

[page break]

We care about the quality of our data. In order to get the most accurate measures of your opinions and information, it is important that you read each question carefully and provide thoughtful responses. Do you commit to providing thoughtful answers to the questions in this survey?

○ No

○ Maybe

○ Yes

○ I'm not sure

Thank you for deciding to participate in this study! Your time and contributions are greatly appreciated.

The survey will take about 20 minutes. Some questions may be easier to view on a laptop or tablet than on a phone, but you can complete it on any device.

The survey has four sections:

First, you will be asked about the circumcision decision-making process for your son(s).

Second, you will be asked about your knowledge and understanding of circumcision.

Third, you will complete a brief demographics questionnaire.

Fourth, you will be asked two quality control questions, and have the opportunity to sign up for an optional, paid follow-up interview.

Section 1 (Decision-Making)

In the chart below, please indicate the requested information about each of your sons. You must complete at least one full row (all 5 columns) in order for your response to be counted.

	circumcision status	year of birth	month of birth	date of birth	location of birth
1st son	[circumcised / uncircumcised]	[year]	[month]	[day]	[state]
2nd son					
3rd son					
4th son					
5th son					

6th son					

If at least one of your sons is *circumcised* **and** at least one is *not circumcised*, please explain why they are different. If all of your sons have the same circumcision status, write NA.

If you have multiple sons, please answer all of the following questions in terms of your *most recently born* son.

Is this son circumcised?

○ Yes

○ No

Did your son have any already-diagnosed medical conditions that impacted your decision of whether or not to circumcise him? If so, please share what it was. (I.e., phimosis, autoimmune disorder, recurring urinary tract infections, etc.)

○ No, my son did not have any medical conditions that influenced this decision.

○ Yes, my son had a medical condition that influenced this decision. (specify below)

We would like to understand what factors were involved in your decision-making process. Please rank each factor as follows:

0 = not involved in my decision

1 = considered, but did not strongly sway the decision

2 = slightly influenced my decision

3 = strongly influenced my decision

	0	1	2	3
religion	○	○	○	○
hygiene	○	○	○	○
personal / ethical values	○	○	○	○
infection prevention	○	○	○	○
doctor’s advice	○	○	○	○
the child’s future sexual pleasure	○	○	○	○
the predicted preferences of future sexual partners	○	○	○	○
his father’s circumcision status	○	○	○	○
whether or not my friends / peers circumcised their children	○	○	○	○
desire for him to look like other boys	○	○	○	○
my personal aesthetic preference	○	○	○	○
finances / medical coverage	○	○	○	○
desire to be perceived as a “good parent”	○	○	○	○
experience with a previous son	○	○	○	○

As far as you know, did your medical insurance cover (or would it have covered) your son's circumcision?

○ Yes, it covered / would have covered his circumcision.

○ No, it did NOT cover / would not have covered his circumcision.

○ We had medical insurance, but I DON'T KNOW if it covered / would have covered his circumcision.

○ We did not have medical insurance.

Please indicate the circumcision status of this child's father.

○ Circumcised

○ Not circumcised

○ Unknown

Who was involved in the decision-making process? Please include anyone who you relied on for advice. (select all that apply)

□ Myself

□ The child’s other parent

□ The child’s grand-parents

□ Peers / friends

□ A nurse

□ A midwife

□ A pediatrician

□ Another kind of medical provider

□ An instructor at a birth / childcare class

□ Religious leader (specify)

□ Other (specify)

Where / from whom did you receive information about circumcision before making your decision? (select all that apply)

□ Word of mouth / common knowledge

□ Peers / friends

□ Social media

□ The child's other parent

□ My own parents

□ A nurse

□ A midwife

□ A pediatrician

□ Another kind of medical provider / medical organizations

□ Online searches such as Google

□ Research from databases such as PubMed or EBSCOhost

□ An instructor at a birth / childcare class

□ Religious leader (specify)

□ Other (specify)

Do you believe that you were given adequate medical information in order to make a circumcision decision for your son?

○ Definitely not

○ Probably not

○ Unsure

○ Probably yes

○ Definitely yes

Do you feel that medical providers tried to push you towards a certain decision?

○ Yes, they encouraged me to circumcise.

○ Yes, they encouraged me to NOT circumcise.

○ Yes, some providers encouraged me to circumcise AND some providers encouraged me not to.

○ No, all providers gave neutral advice.

Do you plan to discuss the topic of circumcision with your son while he is growing up?

○ Yes, I (or his other parent) will bring it up once he seems old enough.

○ I / we would only discuss it with him if he directly asks about it.

○ No, I / we don't plan to ever discuss it with him.

In your opinion, which of the following **could be** a valid reason for parents to circumcise their sons in the United States today?

	valid reason to circumcise	invalid / bad reason to circumcise
religion	○	○
hygiene	○	○
previously diagnosed medical condition	○	○
to prevent infections	○	○
doctor's advice	○	○
the child's future sexual pleasure	○	○
the predicted preferences of future sexual partners	○	○
his father is circumcised	○	○
whether or not the parents' friends / peers circumcised their children	○	○
desire for him to look like other boys	○	○
the parents' personal aesthetic preferences	○	○
desire to be perceived as a "good parent"	○	○
the parents' experience with a previous son	○	○

Is there anything else that you'd like to share about your knowledge, thinking, or decision-making process surrounding circumcision? (optional)

Section 2 (Knowledge)

(Yellow highlight indicates answers counted as "correct.")

This section aims to assess your understanding of neonatal (newborn) male circumcision.

Please answer each question to the best of your ability, based on your current understanding.

In the last five years, what percentage of American-born males do you believe were circumcised in infancy?

○ 0 to 10%

○ 10 to 20%

○ 20 to 30%

○ 30 to 40%

○ 40 to 50%

○ 50 to 60%

○ 60 to 70%

○ 70 to 80%

○ 80 to 90%

○ 90 to 100%

In the United States, neonatal circumcision rates are:

○ Significantly higher than most other English-speaking countries.

○ About the same as most other English-speaking countries.

○ Significantly lower than most other English-speaking countries.

True or false: Infant circumcision has significant health benefits for males in the United States today.

○ True

○ False

In the United States today, which of the following are most effectively prevented by circumcision?

○ HIV / AIDs

○ Penile cancer

○ Testicular cancer

○ HPV and other STDs

○ Urinary tract infections

○ None of the above conditions are most effectively prevented by circumcision in the United States.

True or false: The foreskin is typically the least sensitive part of the penis when exposed to light touch.

○ True

○ False

True or false: Male circumcision (as it is typically performed in the United States today) is less invasive than all forms of female genital cutting, which the World Health Organization describes as "mutilation."

○ True

○ False

True or false: Foreskin has unique properties beyond that of regular skin.

○ True

○ False

Which of the following was the initial reason why circumcision became popular in the United States?

○ To help maintain hygiene for families who had limited access to showers and clean water in the 19th century.

○ To prevent illnesses such as STDs and urinary tract infections in the mid 20th century.

○ To try to prevent boys from masturbating in the late 19th and early 20th centuries.

○ It gained popularity mostly for aesthetic reasons in the late 19th and early 20th centuries.

○ It was widely practiced by the Europeans who first immigrated to America, and has remained equally popular ever since.

This question is used to make sure that you are paying attention and reading the questions thoroughly before responding. Please select the option that shows the number ten in order to continue with the survey.

○ 0

○ 10

○ 20

○ 50

○ 80

○ 100

[page break]

Which of the following is true about circumcision and urinary tract infections (UTIs)?

○ On average, circumcision prevents each boy from experiencing 3 UTIs during his life.

○ On average, circumcision prevents each boy from experiencing 1 UTI during his life.

○ On average, 5 boys would need to be circumcised in order to prevent 1 UTI.

○ On average, 100 boys would need to be circumcised in order to prevent 1 UTI.

○ Circumcision has no correlation with UTIs.

Which of the following is true about urinary tract infections (UTIs) in females?

○ On average, every female will have 3 UTIs during her life.

○ On average, every female will have 1 UTI during her life.

○ On average, 1 in every 2 females will have a UTI during her life.

○ On average, 1 in every 100 females will have a UTI during her life.

Which of the following is true about urinary tract infections (UTIs)?

○ They can be fatal if left untreated, and they are very hard to cure.

○ They can be fatal if left untreated, but they are easily cured with antibiotics.

○ They are not very dangerous, but they are very hard to cure.

○ They are not very dangerous, and they are easily cured with antibiotics.

Section 3 (Demographics)

Where do you currently live?

City _____

State _____

What is your race / ethnicity?

□ White

□ Black or African American

□ American Indian or Alaska Native

□ Asian

□ Native Hawaiian or Pacific Islander

□ Hispanic or Latino

□ Other _____

What was your biological sex at birth?

○ Male

○ Female

○ Intersex

What is your gender identity?

○ Man

○ Woman

○ Non-binary / other _____

○ Prefer not to say

What is your religious affiliation?

○ Jewish

○ Muslim

○ Christian

○ Catholic

○ Atheist

○ No religious affiliation

○ Other _____

What is your political affiliation?

○ Democrat

○ Republican

○ Independant

○ Other

○ Prefer not to say

What is your age?

What is the highest level of education that you have received?

○ Less than high school

○ High school graduate

○ Some college

○ 2 year degree

○ 4 year degree

○ Masters / professional degree

○ Doctorate degree

What is the estimated yearly income in your household?

○ Less than $10,000

○ $10,000 - $19,999

○ $20,000 - $29,999

○ $30,000 - $39,999

○ $40,000 - $49,999

○ $50,000 - $59,999

○ $60,000 - $69,999

○ $70,000 - $79,999

○ $80,000 - $89,999

○ $90,000 - $99,999

○ $100,000 - $149,999

○ More than $150,000

How did you hear about this study?

Section 4 (Quality Control & Interview Sign Up)

THIS IS THE LAST PAGE OF THE SURVEY.

Data confirmation & paid interview opportunity:

Please re-state your son(s)' birthdays and circumcision statuses to confirm the validity of your data.

	circumcision status	year of birth	month of birth	date of birth
1st son	[circumcised / uncircumcised]	[year]	[month]	[day]
2nd son				
3rd son				
4th son				
5th son				
6th son				

Please re-state which factors were most important to you in your circumcision decision-making process.

Paid interview sign up:

The researchers who organized this survey would also like to interview some of the respondents in order to gain a deeper understanding of their answers. You will have the option to include your spouse / co-parent in the interview. Each interview participant will be given a **$25 Visa gift card** as compensation for their time and contributions. The interviews will take about 30 to 45 minutes, and will be conducted virtually, via Zoom. If you might be interested in participating in an interview and are willing to receive more information, please type your email address below.

If you would like to be updated on the findings of this study after the research is complete, please enter your email address below.

Interview Protocol

Thank you so much for joining the meeting! Before we start I'm going to read you an informed consent document, which will take about three to five minutes.

[Read informed consent document]

Do you agree to participate in the interview?

[Begin recording]

1. Can you tell me a bit about your son?

2. How did you find out that you'd be having a boy?

3. I see that your son was born in [INSERT STATE]. Were all of your prenatal visits in that state as well?

4. Can you recall what your thoughts were about circumcision before you ever found out that you'd be having a son?
    a. Where did you gather that information from?
    b. Do you remember any particular conversations you had that contributed to your thinking on the topic, or was it more just general perceptions?
        i. IF YES: What did you hear in those conversations?
        ii. IF YES: Did you agree with what you heard at that time?
            1. IF YES: Do you still agree?
    c. Do you think these ideas are reflective of how most other people in your community think about circumcision?
    d. In answering this question, who are you thinking of as your community?

5. Once you found out you'd be having a son, do you remember when the first time was that you thought about whether or not he would be circumcised?
    a. What caused you to start thinking about it?

   b. What were your thoughts at that time?
   c. Did you already know for sure which decision you would make?

6. When was the decision finally made?
   a. What would you say your role was in coming to the decision? Was it mostly your decision, or was it mostly someone else's decision?
   b. Was it a difficult decision?
      i. IF YES: what made it difficult?

7. IF CIRCUMCISED: Do you remember exactly when the circumcision procedure was performed?
   a. Were there any complications with the procedure?
   b. Were you asked to sign a document to give your consent for the procedure to be done?

8. What would you say ended up being the main reasons for making the decisions that you did?
   a. IF HYGIENE was a factor:
      i. What does hygiene mean to you?
      ii. Is it an appearance thing, a convenience thing, or a medical thing?
   b. IF PERSONAL / ETHICAL VALUES was a factor:
      i. What does that mean to you?
   c. Was any one factor THE MOST important in the decision?

9. Did you learn about circumcision from any medical providers?
    a. IF YES: Do you remember approximately when each of those conversations occurred?
    b. IF YES: For each one, ask:
        i. Did they bring up the conversations, or did you initiate them?
        ii. Did they give you any materials to learn about circumcision?
        iii. What were your main takeaways from what they told you / gave you?
        iv. How much would you say that this impacted your decision?
    c. IF YES: Do you feel that your doctor's advice is similar to what other doctors in your area say, or do you think that some doctors have different perspectives?
        i. What gives you this impression?
    d. IF YES: Is there any information that you wish they had given you but they didn't?
        i. IF YES: What is it?
        ii. IF YES: Why do you think they didn't give you that information?

10. Did you learn about circumcision from any other sources like friends, family, google, social media?
    a. IF YES: Did you initiate the conversation(s)/search(es)?
    a. IF YES: When did the conversation(s)/search(es) occur?
    b. IF YES: What were your main takeaways from those conversation(s)/source(s)?

11. From your understanding, are there any medical benefits that come from infant circumcision?
    a. IF YES: What are those benefits?
    b. IF YES: (for each one)
        i. Is that something you remember learning from somewhere in particular, or was it more of a general idea / guess?
        ii. From your impression, how effective is circumcision at preventing this condition?
        iii. From your impression, how common is this condition in the US?
        iv. From your impression, how dangerous is this condition in the US?
        v. Do you remember who or where you learned this from?
    c. IF YES: Would you say that circumcision is "medically *necessary*"?
        i. IF YES: Which medical condition(s) are the most "necessary" to be prevented with circumcision?
            1. IF UTI: Can I give you some more information about circumcision and UTIs?
                a. IF YES: Circumcision prevents UTIs 1/100 times, and UTIs are very easily treatable with a few days of antibiotics. Does this change your thinking at all about if circumcision is medically necessary?
            2. IF CANCER: Can I give you some more information about circumcision and Cancer?

a. IF YES: It is true that usually only uncircumcised men develop penile cancer. However, the cancer usually comes from a condition called phimosis which can be treated with circumcision on an as-needed basis, and fewer than 1 in 100,000 men each year will develop penile cancer. Does this change your thinking at all about if circumcision is medically necessary?

12. Do you know whether or not circumcision was / would have been covered by your insurance?
    a. IF YES: How did you find that out?
    b. IF YES: When did you find that out?
    c. IF YES: Did the fact that it [was / wasn't] covered play a role in your decision of whether or not to circumcise?
    d. IF YES: Did the fact that it [was / wasn't] covered affect your *thinking* about circumcision in general?
    e. IF COVERED: Do you know what the cost of the procedure *would have been* if it hadn't been covered by your insurance?
        i. IF YES: How did you find that out?
        ii. IF YES: When did you find that out?
    f. IF NOT COVERED: Do you know what the cost of the procedure was?
        i. IF YES: How did you find that out?
        ii. IF YES: When did you find that out?

iii. IF YES: If it was a different price could that have changed your thinking or your decision about the procedure?

13. Do you have any ideas about why circumcision first became popular?
    a. IF RELIGION: It is true that circumcision has some religious significance in Judaism, Islam and some tribal communities, but do you have any ideas of why it became popular in the United States?

14. What percentage of males do you think are circumcised in the US?
    a. Do you think this number has changed over time, or do you think the prevalence has been around the same for a long time?
        i. What gives you that impression?
    b. Do you think the prevalence is the same across the country, or do you think there are some parts of the country where it's more prevalent and some parts where it's less prevalent?
        i. IF VARIATION: In what places do you think it's more popular vs less popular? Why?
    c. Do you think the rates of circumcision are similar in other English-speaking countries?
        i. What gives you that impression?
        ii. Why do you think that is the case?

15. Why do you think so many parents circumcise their sons today?

16. How do you feel about your circumcision decision today—Do you think it was the right choice for you? Why?

17. Is there anything that a medical provider could have said or done that might have changed your decision or your thoughts on the topic?

18. If you were to have another son, would you make the same choice? Why?

19. What do you think is important for health care providers to know or do when they're helping parents make this decision?

20. What information do you think is important for other parents to know when they're making this decision?

21. Do you have any advice for other parents who are making this decision?

22. Is there anything that you feel is important for boys to know about circumcision as they're growing up?
    a. IF YES: Do you plan on talking about this with your son?
        i. IF YES: At what age?

23. Is there anything you'd like to ask me just for your own knowledge about the topic?

24. Do you consent to direct quotes from this interview being used in papers about the study? Again, there wouldn't be any names or identifying information associated with it.