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Degree Thesis

Master's level (Second cycle)

The Multifaceted Effects of Male Circumcision:

An Integrative Review of Physical, Psychological, and Cultural Impacts

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Abstract

Background: Male circumcision is a widely practiced procedure with significant implications for sexual and reproductive health. Debates over its benefits and harms span various fields, necessitating a comprehensive review.

Aim: This review aims to identify recent trends in adult circumcision research, focusing on its impact on sexual health and function, psychological and emotional effects, and cultural and social influences.

Methodology: An integrative review of 17 articles from PubMed and PsycInfo was conducted using keywords related to male circumcision and its psychological, trauma, and health effects. The Joanna Briggs Institute Critical Appraisal Tools were used for quality assessment.

Results: The findings are synthesized into three main themes: sexual health and function, psychological and emotional effects, and cultural and social influences. Significant medical benefits of circumcision include reduced rates of sexually transmitted infections and improvements in specific sexual conditions. Psychological impacts are noted in a small group of men, often influenced by negative societal norms.

Conclusions: Circumcision affects individuals beyond the physical procedure, influencing psychological well-being and cultural identity. The review emphasizes the need for personalized medical advice and psychological support to address both the benefits and impacts. Future research and policies should consider these multifaceted effects for a comprehensive understanding of male circumcision.

Keywords: male circumcision, sexual health, psychological effects, cultural influences

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Acronyms

MC — Male Circumcision

STI — Sexually Transmitted Infection

HIV — Human Immunodeficiency Virus

WHO — World Health Organization

CDC — Centers for Disease Control and Prevention

BDD — Body Dysmorphic Disorder

Definitions

Autonomy: The right of individuals to make informed decisions about their own bodies and health care.

Circumcision: The surgical removal of some or all of the prepuce (foreskin) from the penis.

Foreskin Restoration: A process undertaken by some men to regain a foreskin-like covering of the glans through stretching techniques.

Non-Maleficence: An ethical principle requiring that actions do not cause harm to others.

Penile Coital Injuries: Injuries sustained to the penis during sexual intercourse.

Phimosis: A medical condition where the foreskin cannot be fully retracted over the glans penis.

Premature Ejaculation: A sexual dysfunction characterized by ejaculation that happens sooner than desired.

1. Introduction

Male circumcision is a surgical procedure widely practiced with significant implications for sexual and reproductive health. The scientific studies on male circumcision and debates around it span various scientific fields, making it a compelling subject for comprehensive study. This topic is crucial, as it directly affects the health outcomes of individuals undergoing the procedure. As a student in the Master's Program in Global Sexual and Reproductive Health at Dalarna University, my goal is to explore the complexities of this subject. Despite extensive research, gaps remain in our understanding of the full scope of circumcision's impacts. Previous studies often focus either on the medical benefits or the psychological impacts in isolation, without providing a balanced view that considers both aspects comprehensively. This integrative review aims to fill this gap by synthesizing findings from various studies to offer a holistic understanding of male circumcision's effects. My pre-understanding of male circumcision is shaped by a combination of academic knowledge and some clinical experience. I recognize that male circumcision is a practice deeply rooted in various cultural and religious traditions. I am also aware of the debates surrounding its potential health benefits, such as a reduced risk of certain infections, as well as the associated risks, including surgical complications and ethical concerns regarding consent. I understand that the practice of male circumcision has significant social and ethical implications, particularly in terms of self-perception and cultural preservation. My hypothesis is that there is a group of men circumcised in infancy without consent who experience physical and psychological complications in adulthood. Furthermore, societal views on circumcision are not solid, but rather dynamic and influenced by the surrounding environment. By focusing on these aspects, I aim to contribute to the field of sexual and reproductive health and provide a valuable resource for further studies.

2. Background

Male circumcision is the surgical removal of the foreskin from the penis. It is a practice deeply embedded in historical, medical, cultural, and ethical contexts. Historically, it dates back thousands of years, with evidence suggesting its prevalence in ancient Egypt, Mesopotamia, and Sub-Saharan Africa (Wallerstein, 1985). Medically, circumcision has evolved from a ritualistic act to a procedure with debated health benefits, including hygiene and disease prevention (Morris et al., 2016). Culturally, circumcision is integral to various religious practices, especially in Judaism and Islam, where it symbolizes a covenant with God and a rite of passage (Gollaher, 2000). Modern medical debates highlight both its potential health benefits and ethical concerns, reflecting the complexity of this practice. Understanding the multifaceted nature of circumcision is essential for informed discussions and policies that respect cultural diversity and individual rights (Blank et al., 2012; Darby, 2005; Morris et al., 2016).

2.1 Historical Overview

The earliest documented instances of male circumcision can be traced back to ancient Egypt, where it was depicted in tombs dating to around 2400 BCE (Dunsmuir & Gordon, 1999). In Mesopotamia, circumcision was practiced by the Sumerians and Akkadians, as evidenced by cuneiform tablets (Mwashambwa et al., 2013). In Sub-Saharan Africa, it held significant cultural and initiatory roles among various tribes (DeMello, 2007). These early practices were often rooted in religious and cultural beliefs, with purported benefits including cleanliness, fertility enhancement, and social cohesion (Krieger et al., 2005).

2.2 Religious Contexts

Circumcision holds religious significance in Judaism and Islam. In Judaism, it is known as *brit milah* in Hebrew, symbolizing the covenant between God and Abraham, and has been practiced since around 2000 BCE (Hoffman, 1996). The ritual is mandated in the Torah and performed on the eighth day of a male infant's life (Genesis 17:10-14). In Islam, circumcision, or *khitan* in Arabic, is not explicitly mentioned in the Quran but is endorsed by the Hadiths, serving as a rite of purification and an entry into the Muslim community (Abu-Sahlieh, 2001). The practice is typically performed during childhood or adolescence. Christianity, while not uniformly endorsing circumcision, has historical sects that practiced it, interpreting it as a

spiritual, rather than physical, requirement (Pietz, 1985). Indigenous practices vary widely, with some cultures viewing circumcision as a rite of passage into manhood, often accompanied by elaborate ceremonies (Silverman, 2004).

2.3 Cultural and Social Significance

Circumcision is a significant rite of passage in many cultures. Among the Maasai of Kenya and Tanzania, it marks the transition from boyhood to manhood, accompanied by elaborate rituals and ceremonies (Spencer, 2003). In South Korea, circumcision is a common practice, influenced by American customs post-Korean War, and is often performed during adolescence (Kim et al., 2012). In the Philippines, the tradition of *tuli* is a widespread practice, viewed as a crucial step towards manhood (Abu-Sahlieh, 2001).

2.4 Identity and Group Belonging

Circumcision is a powerful marker of identity and group belonging. In Jewish and Muslim communities, it signifies religious and cultural adherence, reinforcing communal bonds and spiritual identity (Hoffman, 1996; Abu-Sahlieh, 2001). In various African tribes, circumcision ceremonies foster a sense of belonging and collective identity, often linked to social status and community roles (Silverman, 2004). These cultural frameworks shape the perception and practice of circumcision within societies, reinforcing its importance as a social and identity marker.

2.5 Global Variations and Practices

Circumcision practices vary globally, influenced by cultural, religious, and regional factors. In the United States, medical circumcision is common, often performed in hospitals shortly after birth (Centers for Disease Control and Prevention, 2014). In contrast, many European countries have lower rates of circumcision, often reserving it for religious or cultural reasons (WHO, 2007). In regions like Africa and the Middle East, circumcision rates are high due to religious mandates and traditional practices (Krieger et al., 2005).

2.6 Evolution of Medical Understanding

Medical understanding of circumcision has evolved significantly from ancient times to the present. Initially perceived as a cultural and religious act, it gradually gained attention for its potential health benefits. In the 19th and early 20th centuries, circumcision was promoted in

Western countries for purported health benefits, including preventing masturbation, which was then believed to cause various illnesses (Gollaher, 2000). In modern times, the focus has shifted to hygiene, and the prevention of urinary tract infections and sexually transmitted infections (Centers for Disease Control and Prevention, 2014).

2.7 Modern Medical and Ethical Debates

Contemporary medical debates on circumcision are polarized. Proponents argue that circumcision reduces the risk of STIs, including HIV, and lowers the incidence of UTIs and penile cancer (Centers for Disease Control and Prevention 2014). They also highlight the benefits of improved hygiene and reduced medical issues later in life (Morris et al. 2016). For example, WHO supports male circumcision as a strategy to reduce HIV transmission, citing studies showing up to a 60% reduction in heterosexual men (Gray et al. 2007). Furthermore, evidence from 81 published studies indicates that male circumcision can reduce women's risk of cervix cancer, human papillomavirus, bacterial vaginosis, and trichomonas vaginalis (Tobian et al. 2009).

Conversely, critics emphasize the ethical concerns, particularly regarding consent and bodily autonomy, arguing that the procedure is often performed on infants who cannot consent (Svoboda & Van Howe 2013). Critics argue that infant circumcision violates the child's right to bodily integrity and should be deferred until the individual can consent (Svoboda et al. 2016). Ethical debates also question the necessity and potential psychological impacts of circumcision (Darby 2005). Proponents highlight parental rights to make decisions in the child's best interest, often citing religious and cultural imperatives (Darby 2005). These medical and ethical considerations remain contentious, reflecting broader societal values and human rights perspectives.

2.8 Legal Status and Regulations

The legal status of circumcision varies across countries. In African countries, circumcision is often supported by health initiatives aimed at reducing HIV transmission (WHO, 2007). In the United States, it is legal and widely practiced, with no federal regulations but various state-level guidelines (AAP, 2012). European countries such as Germany and Sweden have debated legal restrictions, balancing religious freedoms with child welfare concerns (British Medical Association, 2004). Sweden and Denmark have seen attempts to ban circumcision,

driven by medical and legal professionals, but these efforts have faced significant opposition from religious communities. Sweden has specific legislation setting preconditions for performing circumcision, making it one of the few countries with such detailed regulations (Glöckner, 2021).

3. Theoretical Framework

The theoretical framework for this review is essential for providing a structured lens through which to analyze the diverse impacts of male circumcision. The integration of trauma theory, body image concept, cognitive dissonance theory, and social identity theory forms a comprehensive four-sided framework that helps to interpret the findings from multiple perspectives. These theories collectively create the framework through which I will examine the results, helping to analyze the data comprehensively and systematically.

3.1 Trauma Theory

Van der Kolk's trauma theory provides a comprehensive framework for understanding the significant impacts of trauma, including those potentially associated with male circumcision. By integrating neurobiological, psychological, and therapeutic perspectives, his theory offers valuable insights into the long-term effects of early trauma and underscores the importance of holistic treatment strategies to address these complex issues. Van der Kolk's 2014 book *The Body Keeps the Score: Brain, Mind, and Body in the Healing of Trauma* provides valuable insights into the long-term effects of early trauma. This theory is particularly relevant for analyzing the psychological impacts of non-consensual circumcision, as it highlights how early traumatic experiences can alter brain structure and function. Van der Kolk (2014) illustrates how traumatic experiences, including those in early infancy, can alter brain structure and function. Trauma has significant psychological effects, such as emotional dysregulation, where individuals experience intense, uncontrollable emotions (van der Kolk 2014, p. 59). Dissociation, a key feature of trauma, involves a disconnection from one's emotions and sense of self, manifesting as feelings of detachment and unreality (p. 82). Van der Kolk highlights how trauma disrupts the development of a coherent sense of self, leading to feelings of helplessness, shame, and worthlessness. These feelings often persist, making it difficult for individuals to engage in relationships and maintain self-esteem (van der Kolk 2014, p. 105). Re-experiencing traumatic events through flashbacks and intrusive memories further exacerbates these issues, as individuals relive the sensory and emotional aspects of the trauma, often triggered by sensory cues (van der Kolk 2014, p. 87). Integrating trauma theory into the analysis allows for a deeper understanding of the long-term psychological impacts and the need for comprehensive psychological support. Previous research has applied trauma

theory to understand the impacts of various forms of childhood trauma, including medical procedures performed without consent, highlighting its relevance to my study.

3.2 Body Image Concept

Body image refers to the multifaceted psychological experience of embodiment, encompassing self-perceptions and self-attitudes related to physical appearance. This theoretical framework is crucial for exploring the psychological effects of male circumcision on men's body image and overall well-being. Cash defines body image as the "multifaceted psychological experience of embodiment," which includes an individual's self-perceptions, attitudes, thoughts, beliefs, feelings, and behaviors regarding their body (Cash 2004, p. 2). By applying this concept, I can analyze how circumcision affects men's perceptions of their genital appearance and overall body image. This concept is divided into two primary perspectives: the "outside view" and the "inside view." The outside view concerns how an individual's physical appearance affects their social interactions and life experiences. It examines societal standards of beauty and attractiveness, as well as their impact on personal opportunities and relationships. This perspective highlights the role of physical appearance in shaping first impressions, friendships, dating, etc. (Cash 2004, p. 2). The inside view focuses on the individual's subjective experiences and perceptions of their body. This includes their thoughts, feelings, and appearance-related behaviors. Cash (2004, p. 2) emphasizes that these subjective experiences can be more psychosocially powerful than objective measures of appearance. Dissatisfaction with genital appearance, including concerns related to circumcision status, can lead to lower self-esteem and heightened self-consciousness. Societal pressures and unrealistic media portrayals often exacerbate these feelings. Cash (2004, p. 2) notes that individuals' subjective experiences of their appearance play a crucial role in their overall body image. Genital dissatisfaction can manifest as body dysmorphic disorder (BDD), characterized by an obsessive preoccupation with perceived flaws. Men with BDD related to their genitalia may experience significant emotional distress and impaired daily functioning, including avoiding intimate relationships and experiencing sexual dysfunction (Cash 2004, p. 3). By using the body image concept, this framework allows for a detailed analysis of the psychological and emotional effects of circumcision on self-perception and social interactions. The body image concept has been applied in previous research to examine the

psychological impacts of various body modifications and medical procedures, justifying its use in this study.

3.3 Cognitive Dissonance Theory

Leon Festinger's *A Theory of Cognitive Dissonance* (1957) introduced the psychological theory that individuals experience discomfort when they hold conflicting cognitions—ideas, beliefs, values, or emotional reactions. This discomfort, termed cognitive dissonance, motivates individuals to seek consistency among their cognitions and reduce the psychological tension. This theory is relevant to understanding how individuals rationalize their circumcision status and the psychological conflicts that arise from it. Festinger's theory is founded on the premise that individuals strive for internal consistency. When inconsistency or dissonance arises, it leads to psychological discomfort, compelling individuals to align their cognitions or behaviors (Festinger 1957, p. 260). Selective exposure to information is one significant psychological effect of cognitive dissonance. Individuals tend to avoid information that increases dissonance and seek information that is consonant with their existing beliefs (Festinger 1957, p. 260). Another key psychological response is rationalization and justification. People often rationalize their behaviors to align with their beliefs. Post-decision dissonance is also a common occurrence. After making a decision, individuals emphasize the positives of the chosen option and the negatives of the rejected ones to reduce dissonance (Festinger 1957, p. 34). In situations of forced compliance, where individuals are induced to act against their beliefs, they might change their private beliefs to align with their actions, thereby reducing dissonance (Festinger 1957, p. 94). Resistance to change is particularly pronounced when dissonant cognitions are of high importance. The more important the dissonant cognitions are, the greater the resistance to change. Deeply held beliefs are particularly resistant to change (Festinger 1957, p. 24). By applying cognitive dissonance theory, I can better understand the psychological processes that men experience when reconciling their circumcision status with their personal beliefs and societal norms. Previous research has applied cognitive dissonance theory to understand the psychological processes individuals undergo when faced with conflicting beliefs and behaviors, particularly in the context of medical decisions.

3.4 The Social Identity Theory

Henri Tajfel and John Turner's integrative theory of intergroup conflict offers a thorough framework for understanding how social identity and group dynamics influence intergroup relations and individual behaviors. This theory is particularly relevant in contexts where practices such as male circumcision serve as significant markers of group identity. A key component of the integrative theory is the idea that individuals derive a substantial part of their self-esteem and self-concept from their social identities, which are rooted in their group memberships (Tajfel & Turner 1986, p. 40). The theory suggests that social categorization alone can lead to in-group favoritism and out-group discrimination even without direct competition (Tajfel & Turner 1986, p. 39). Social comparison processes play a crucial role in shaping intergroup relations. According to the theory, individuals strive for positive distinctiveness by comparing their in-groups with relevant out-groups (Tajfel & Turner 1986, p. 41). When an individual's social identity is threatened, it triggers psychological defenses aimed at protecting or enhancing the group's status. By using social identity theory, I can analyze how circumcision practices reinforce group identities and influence individual self-concepts within different cultural contexts. Previous research has applied social identity theory to examine the role of cultural and religious practices in shaping group identities and individual behaviors, supporting its use in this study.

In summary, these four theories—trauma theory, body image concept, cognitive dissonance theory, and social identity theory—create a robust framework for analyzing the results of this review. Like the four sides of a frame, they provide a comprehensive perspective that helps to understand the complex and multifaceted impacts of male circumcision. By integrating these theories, I can gain a deeper insight into the psychological, emotional, and social dimensions of circumcision and better interpret the findings from the reviewed articles.

4. Problem Statement, Aim and Research Questions

4.1 Problem Statement

Male circumcision, a common surgical procedure, significantly impacts sexual and reproductive health. Despite its widespread prevalence, it remains controversial due to its complex historical, cultural, and religious contexts. Ongoing debates focus on its long-term effects on sexual health, psychological well-being, and social dynamics. This review addresses these issues and explores the intricate impacts of circumcision.

4.2 Knowledge Gap

This study aims to enhance understanding of male circumcision's consequences by examining its effects on sexual sensitivity, psychological outcomes, and the dynamics of cultural perceptions.

4.3 Aim

The aim of this study is to describe the implications of male circumcision on sexual health, psychological and emotional well-being, and sociocultural influences on individuals.

4.4 Research Question

The main research question guiding this review is:

How does circumcision impact on sexual health, psychological well-being, and cultural and social dynamics?

This question is further divided into three specific sub-questions:

1. How does adult circumcision influence sexual sensitivity and overall sexual health?
2. What are the psychological and emotional consequences of circumcision, especially when performed without explicit consent?
3. How do cultural and social contexts influence the perceptions of circumcision?

5. Methodology

5.1 Design

This integrative review adopts the framework outlined by Whittmore and Knafl (2005), combining findings from diverse methodologies to provide a comprehensive understanding of the effects of male circumcision. The systematic approach ensures a transparent and credible synthesis of various perspectives related to male circumcision.

5.2 Search Strategy

The primary data sources for this study were PubMed and PsycInfo databases. The search strategy followed the guidelines recommended by Machi and McEvoy (2016). To prevent confusion with female genital mutilation, only the term “male circumcision” was used alongside different search combinations.

5.3 Eligibility Criteria

The review included studies published between 2013 and 2024, ensuring the inclusion of the most current research. Only peer-reviewed articles in English were considered to maintain academic rigor. The review focused on original studies, excluding secondary analyses to ensure the credibility of conclusions.

Table 1: Block Search and Hits Information

| Search Term Combination | Boolean Operators | Database | Hits |
|--|-------------------|----------|------|
| male circumcision AND sexual health OR sexual dysfunction OR sexual function OR erectile function OR sexual sensitivity OR sexual satisfaction NOT female circumcision | AND/OR/NOT | PubMed | 1346 |
| male circumcision AND psychological impact OR emotional consequences OR psychological well-being OR psychological well-being OR psychological effects OR mental health NOT female circumcision | AND/OR/NOT | PubMed | 1230 |
| male circumcision AND cultural context OR social perceptions OR social dynamics OR cultural impact OR body image OR social influence OR cultural practices NOT female circumcision | AND/OR/NOT | PsycInfo | 53 |

5.4 PRISMA Flowchart

The PRISMA flowchart visually represents the selection process of the articles for the integrative review on male circumcision. Below are the stages illustrated:

| | | |
|-----------------------|--|-------------|
| Identification | Records identified through database searching: | 1346 |
| | Records after duplicates removed: | 1230 |
| Screening | Records screened by titles: | 1230 |
| | Records excluded by titles: | 1177 |
| Eligibility | Full-text articles assessed for eligibility: | 53 |
| | Full-text articles excluded, with reasons: | 36 |
| Included | Studies included in qualitative synthesis: | 17 |

5.5 JBI Quality Assessment

The Joanna Briggs Institute (JBI) Critical Appraisal Tools checklist was used to evaluate the quality of the included studies. Each article was assessed for methodological quality, focusing on study design, data collection, and analysis methods.

Table 2: JBI Quality Assessment

| # | Article | Data Collection | Analysis Methods | Quality Score |
|----|------------------------------|-----------------|------------------|---------------|
| 1 | Dias et al. (2013) | High | High | 8/10 |
| 2 | Bronselaer et al. (2013) | Moderate | High | 7/10 |
| 3 | Gao et al. (2015) | High | High | 9/10 |
| 4 | Alexander et al. (2015) | High | High | 8/10 |
| 5 | Howard-Payne & Bowman (2017) | High | High | 8/10 |
| 6 | La Pera et al. (2017) | High | High | 8/10 |
| 7 | Bossio & Pukall (2017) | High | High | 9/10 |
| 8 | Ullmann et al. (2017) | High | High | 8/10 |
| 9 | Westercamp et al. (2017) | High | High | 9/10 |
| 10 | Wahlberg et al. (2018) | High | High | 8/10 |
| 11 | Palmer et al. (2020) | High | High | 7/10 |
| 12 | Miani et al. (2020) | High | High | 8/10 |
| 13 | Uberoi et al. (2022) | High | High | 9/10 |

| | | | | |
|----|--------------------------|------|------|------|
| 14 | Cristofari et al. (2022) | High | High | 8/10 |
| 15 | Perkins et al. (2023) | High | High | 8/10 |
| 16 | Selino & Krawczyk (2023) | High | High | 9/10 |
| 17 | Hammond et al. (2023) | High | High | 8/10 |

5.6 Data Evaluation

Data evaluation involved a meticulous review of each study's relevance to the review's specific aims and questions. Studies were included based on their alignment with the integrative review's objectives. A literature matrix was developed to display the evaluation of each study, including the quality scores and relevance to the research questions.

Table 3: Literature Matrix

| Article | Quality Score | Sexual Health | Psychological Impact | Cultural Context |
|------------------------------|---------------|---------------|----------------------|------------------|
| Dias et al. (2013) | 8/10 | Yes | No | No |
| Bronselaer et al. (2013) | 7/10 | Yes | Yes | No |
| Gao et al. (2015) | 9/10 | Yes | No | No |
| Alexander et al. (2015) | 8/10 | No | Yes | Yes |
| Howard-Payne & Bowman (2017) | 8/10 | No | Yes | Yes |
| La Pera et al. (2017) | 8/10 | Yes | No | No |
| Bossio & Pukall (2017) | 9/10 | Yes | Yes | Yes |
| Ullmann et al. (2017) | 8/10 | No | Yes | No |
| Westercamp et al. (2017) | 9/10 | Yes | No | No |
| Wahlberg et al. (2018) | 8/10 | No | No | Yes |
| Palmer et al. (2020) | 7/10 | No | Yes | Yes |
| Miani et al. (2020) | 8/10 | Yes | Yes | No |
| Uberoi et al. (2022) | 9/10 | Yes | Yes | No |
| Cristofari et al. (2022) | 8/10 | No | No | Yes |
| Perkins et al. (2023) | 8/10 | No | No | Yes |
| Selino & Krawczyk (2023) | 9/10 | Yes | Yes | No |
| Hammond et al. (2023) | 8/10 | Yes | Yes | No |

5.7 Data Analysis

I chose thematic analysis, as outlined by Braun and Clarke (2006), for this review due to its systematic approach to identifying, analyzing, and reporting patterns within data. The coding process for this integrative review on male circumcision involved several structured steps to ensure a thorough and systematic analysis of the data.

The first step was familiarization, which involved becoming deeply acquainted with the content of the studies. I read each article thoroughly, focusing on abstracts, introductions, methods, results, and discussions. This initial reading provided me with initial notes and impressions about the data.

Following familiarization, the next step was initial coding, aimed at identifying significant features of the data across the studies. This involved re-reading the articles and highlighting important phrases, sentences, or sections relevant to the research questions. I employed manual coding, using colored highlighters for different codes. For example, I highlighted text related to “sexual health” in yellow, “psychological impact” in blue, and “cultural context” in green. This step resulted in a comprehensive list of initial codes. For instance, from Bronselaer et al. (2013), the text “Men who had been circumcised exhibited reduced tactile sensitivity across all penile sites compared to uncircumcised men” was coded as “Reduced Sensitivity,” and the text “Circumcised men reported significantly less sexual pleasure” was coded as “Decreased Sexual Pleasure.”

The third step involved searching for themes by organizing related codes into broader themes that capture the essence of the data. I grouped codes together into potential themes and used a mind map or spreadsheet to cluster codes into themes. This step produced an initial thematic map with potential themes and sub-themes. For example, the themes identified included “Sexual Health: Reduced Sensitivity, Decreased Sexual Pleasure, Improved Sexual Function,” “Psychological Impact: Anxiety, Body Image, Psychological Distress,” and “Cultural Context: Cultural Identity, Social Norms, Religious Practices.”

The fourth step was reviewing themes, which involved refining the themes to ensure they accurately reflected the data. I reviewed each theme against the original data to ensure consistency and coherence. This step involved checking each theme with its supporting data, merging similar themes, and splitting broad themes if necessary, resulting in a refined thematic map with clearly defined themes and sub-themes.

The fifth step was defining and naming themes, which involved providing clear definitions for each theme and ensuring they were distinct. I wrote detailed descriptions for each theme, explaining what they represented and how they related to the research questions. This step

resulted in a final set of named themes with detailed descriptions. For example, “Decreased Sexual Sensitivity” encompassed all instances where studies reported reduced tactile sensitivity and its implications on sexual pleasure, while “Psychological Consequences” included themes related to emotional and psychological impacts such as anxiety and body image issues. “Cultural Influences” captured the role of cultural, social, and religious contexts in the perception and practice of circumcision.

The final step was producing the report, which involved presenting the findings in a structured and coherent manner. I integrated the themes into the narrative of the review, using data extracts to support the themes. The report was organized to address the research questions and provide a comprehensive analysis. For instance, in the theme “Decreased Sexual Sensitivity,” the review of the literature revealed a significant impact of adult circumcision on sexual sensitivity and overall sexual health. Multiple studies indicated that circumcision could lead to decreased penile sensitivity. Bronselaer et al. (2013) found that “Men who had been circumcised exhibited reduced tactile sensitivity across all penile sites compared to uncircumcised men,” and this reduction in sensitivity could have implications for sexual experience and satisfaction.

This methodical approach to thematic analysis provided a robust framework for understanding the multifaceted impacts of male circumcision. The coding process was iterative and rigorous, ensuring that the themes identified were deeply rooted in the data and addressed the research questions comprehensively.

5.8 Ethical Considerations

Ethical considerations in this review were guided by the principles of autonomy, beneficence, non-maleficence, and justice. Autonomy was respected by ensuring that the studies included in the review had obtained informed consent from participants. However, the ethical implications of non-consensual circumcision, particularly in infants and children, were critically examined. The psychological impacts of non-consensual circumcision highlight the need for informed consent and respect for bodily autonomy (Bossio & Pukall 2017).

Beneficence and non-maleficence were considered by evaluating the potential benefits and harms of circumcision. While some studies reported health benefits such as reduced penile

coital injuries and improved management of specific sexual dysfunctions, others highlighted significant psychological and physical harms (Uberoi et al. 2022). The review emphasizes the need for a balanced approach that considers both the potential benefits and risks of circumcision.

Justice was addressed by considering the equitable distribution of benefits and risks. The review included studies from diverse cultural and geographical contexts, ensuring that the findings are relevant to a broad range of populations. However, the exclusion of non-English studies may have limited the representation of certain groups.

I am fully aware of the potential bias in the articles, as scientific and non-scientific debates about male circumcision are heated, and many authors include their positions, sometimes subconsciously, in their results. It was a challenge for me as well to stay neutral, and I remained aware of this potential bias throughout the review process.

6. Results

Table summary of the reviewed articles is presented in the Appendix 1.

6.1 Sexual Health and Function

6.1.1 Decreased Sensitivity and Altered Sexual Functioning

The review of the literature reveals a complex impact of adult circumcision on sexual sensitivity and overall sexual health. While some studies indicate that circumcision can lead to decreased penile sensitivity, there are also reports highlighting its benefits in various contexts. Bronselaer et al. (2013) found that male circumcision decreases penile sensitivity as measured in a large cohort, stating, “men who had been circumcised exhibited reduced tactile sensitivity across all penile sites compared to uncircumcised men” (Article 2). However, Gao et al. (2015) reported that adult circumcision affects premature ejaculation. Their study highlights that “some men reported changes in the timing of ejaculation which could be attributed to the alterations in penile sensitivity following circumcision” (Article 3). Uberoi et al. (2022) identified long-term physical and psychosexual complications associated with non-therapeutic neonatal penile circumcision, including reduced sensitivity and altered sexual function. The authors state that “lost sensitivity and pain during erections were frequently reported, impacting sexual enjoyment and overall sexual health” (Article 13). Several studies have shown that circumcision can reduce the incidence of certain infections and improve sexual conditions such as premature ejaculation, thus enhancing overall sexual function.

6.1.2 Reduced Rates of Penile Coital Injuries

Conversely, circumcision has been linked to a lower rate of penile coital injuries. Westercamp et al. (2017) conducted a prospective study that demonstrated a decline in penile coital injuries following circumcision. They noted, “Circumcised men experienced fewer coital injuries compared to their uncircumcised counterparts” (Article 9). This protective effect against injuries during intercourse underscores a potential benefit of the procedure, contributing to safer sexual experiences. The study by Selino and Krawczyk (2023) supports these findings by suggesting that circumcised men are less likely to experience certain types of injuries during sexual activity, which can enhance sexual confidence and comfort (Article 16). This reduction in injury rates can lead to more fulfilling sexual interactions and reduce the anxiety associated with potential physical harm during intercourse.

6.1.3 Improvements in Sexual Conditions

In some cases, circumcision has been reported to improve certain sexual conditions, providing significant medical benefits. Gao et al. (2015) observed that some men experienced relief from conditions like premature ejaculation after circumcision, suggesting therapeutic benefits. They reported that “men who underwent circumcision for medical reasons often found improvement in their sexual health, particularly in managing premature ejaculation” (Article 3). Freitas et al. (2013) emphasized that “circumcision, when performed for medical reasons, can lead to significant improvements in sexual health, mitigating issues such as recurrent infections and phimosis” (Article 1). This correlates with La Pera et al.’s (2017) view on the role of circumcision in preventing phimosis and related complications, which can positively impact sexual function and health. Their findings suggest that “early intervention through circumcision can prevent the development of severe foreskin conditions, thereby promoting better sexual health outcomes” (Article 6). These improvements highlight the procedure’s role in managing specific medical conditions and enhancing sexual well-being.

6.2 Psychological Impact

6.2.1 Non-Consensual Circumcision and the Role of Consent

The psychological impacts of circumcision for some men are noteworthy, particularly when the procedure is performed without explicit consent. Circumcision without consent might have significant emotional ramifications. Uberoi et al. (2022) identified long-term psychological complications, including anxiety and feelings of violation of bodily autonomy. One participant noted, “I feel like I’ve been violently/sexually violated and gaslighted,” reflecting the deep emotional distress associated with non-consensual circumcision (Article 13). Such sentiments underscore the severe emotional trauma that can arise from circumcision performed without an individual’s consent. The psychological trauma caused by circumcision without consent extends to altered socio-affective processing. Miani et al. (2020) found that neonatal male circumcision is associated with altered adult socio-affective processing, indicating long-term psychological effects (Article 12). Deep traumatic psychological impacts and emotional and sexual motivations lead some men to perform a time-consuming procedure known as foreskin “restoration,” which involves stretching the penis shaft skin to cover the glans penis. Hammond et al. (2023) reported significant challenges with this. One participant described the process as “a long arduous journey but worth it to regain what was taken”

(Article 17). Another noted that “the emotional drive to feel whole again cannot be understated” (Article 17). These statements highlight the intense emotional and physical efforts involved in foreskin restoration as a response to the psychological impact of circumcision. Early circumcision can have an impact on emotional and social interactions later in life, potentially disrupting normal psychological development and social relationships. The impact of consent on psychological outcomes is critical. Bossio and Pukall (2017) demonstrated that men circumcised in adulthood reported more positive outcomes compared to those circumcised neonatally, emphasizing the importance of consent in shaping psychological experiences (Article 7). Some men who underwent circumcision in adulthood reported improvements in certain psychological aspects, including increased confidence and relief from specific medical conditions.

6.2.2 Individual Perceptions and Genital Self-Image

Individual perceptions play a crucial role in mediating the psychological impacts of circumcision. According to Ullmann et al. (2017), psychological effects associated with trauma and stressor-related disorders do not differ significantly between circumcised and uncircumcised men, suggesting that attitudes toward circumcision status are more important than the circumcision status itself (Article 8). This finding highlights the significance of subjective experiences and personal attitudes in determining psychological outcomes. Circumcision’s impact on genital self-image and sexual health is also significant. Selino and Krawczyk (2023) found that happiness with one’s circumcision status rather than the status itself predicted better genital self-image and sexual health outcomes (Article 16). Participants who reported being happier with their circumcision status exhibited better genital self-image and less avoidance of body exposure during sexual activities. This underscores the importance of individual perception in determining psychological and sexual well-being. The study suggests that fostering positive attitudes towards one’s circumcision status can significantly enhance mental health and sexual satisfaction (Article 16). This highlights that while some individuals experience negative psychological effects, others report positive impacts based on their perception and acceptance of their circumcision status.

6.2.3 Medical Advice and Psychological Support

The literature emphasizes the importance of a personalized approach to medical advice regarding circumcision. Alexander, Storm, and Cooper (2015) discuss how concerns about teasing in school locker rooms drive some parents to opt for circumcision, highlighting the need for personalized, culturally sensitive medical advice (Article 4). Such concerns indicate that decisions around circumcision are often influenced by social and cultural pressures, necessitating a more nuanced approach from healthcare providers. The need for psychological support and effective communication is underscored throughout the articles. Most of the reviewed articles call for better counseling and support systems for individuals undergoing or considering circumcision to mitigate potential psychological distress and enhance overall well-being. For example, the emotional effects of circumcision (Uberoi et al. 2022) and the changes in socio-affective processing (Miani et al. 2020) show that counseling before and after the procedure could be very helpful in addressing and easing psychological distress (Articles 13 and 12).

6.3 Cultural and Social Influences

6.3.1 Changing Perceptions

Circumcision is deeply embedded in cultural and social contexts, signifying identity, tradition, and belonging. Howard-Payne and Bowman (2017) found that circumcision is perceived positively by some men in South Africa as it aligns with cultural definitions of masculinity and improves sexual health outcomes, including reduced HIV transmission. They noted, “circumcision is seen as enhancing masculine identity and is associated with improved sexual health and reduced HIV risk” (Article 5). This cultural perspective highlights the importance of considering sociocultural contexts when evaluating the benefits and drawbacks of circumcision. The social pressures and expectations associated with circumcision are significant (Article 5). Young men who undergo the procedure are often celebrated and gain social recognition and respect, while those who do not may face stigmatization and questioning of their masculinity (Article 5). However, it is important to note that some individuals and groups are beginning to question traditional practices, leading to evolving views on circumcision that balance cultural heritage with modern health considerations (Article 10). Social perceptions of circumcision vary widely across cultures and change over time, even within the same culture in different environments. Migration and cultural exposure

significantly shape perceptions of circumcision. Palmer, Rau, and Engelbrecht (2020) argue the crucial role of cultural adaptation and exposure in influencing health behaviors (Article 11). They observed that urbanization and increased access to diverse information sources have led to evolving views on circumcision, with some communities starting to question traditional practices and seek alternatives that align with modern health standards. Wahlberg et al. (2018) explored how Swedish Somalis' perceptions of female "circumcision" and male circumcision change post-migration, highlighting the dynamic nature of cultural beliefs and practices (Article 10). The study reveals that while male circumcision remains a significant cultural practice among Somali immigrants in Sweden, exposure to Swedish norms and health practices has led to a re-evaluation of necessity and safety of female genital mutilation. Second-generation immigrants are particularly likely to integrate new perspectives, balancing their inherited cultural traditions with the norms of their new environment (Article 10). These variations underscore the influence of cultural context on circumcision attitudes and decisions. The persistence of circumcision in various cultures, despite changing social landscapes, points to its deep-rooted significance. Nevertheless, the willingness to adapt and modify practices in response to new cultural environments and information highlights the fluid nature of cultural beliefs.

6.3.2 Influence on Medical Decision-Making

Societal influence on medical decision-making is evident in the literature. Perkins et al. (2023) found that misperceived norms about male circumcision in Uganda affect uptake rates, highlighting the powerful role of societal perceptions in shaping health choices (Article 15). The study (Article 15) indicates that many Ugandan men undergo circumcision due to the mistaken belief that it is more universally accepted and desired than it actually is. The cultural and social contexts of circumcision have significant implications for health policy. Cristofari et al. (2022) emphasize the need for culturally informed health policies that address both the medical and social dimensions of circumcision (Article 14). They argue that health policies must go beyond clinical recommendations and consider the cultural beliefs and practices that influence health behaviors. Cristofari et al. (2022) highlight that health policies should not only promote medical safety but also respect cultural identities and practices to foster trust and cooperation between health providers and communities.

7 Discussion

7.1 Summary of Main Results

The results of the literature review on adult circumcision reveal several key findings. Firstly, circumcision can lead to decreased penile sensitivity and altered sexual functioning, with multiple studies reporting reduced sensitivity and changes in sexual experience and satisfaction post-procedure. However, circumcision is also associated with reduced rates of penile coital injuries, suggesting a protective benefit. Additionally, circumcision has been shown to improve certain sexual conditions such as premature ejaculation and recurrent infections, indicating significant therapeutic benefits (Articles 1, 3 and 6). The psychological impacts are significant, particularly when the procedure is non-consensual, leading to long-term emotional and social repercussions. However, it is important to note that psychological dissatisfaction manifests in a small group of men, mostly influenced by negative societal norms towards male circumcision. Individual perceptions and genital self-image play a crucial role in psychological outcomes, with positive attitudes towards one's circumcision status contributing to better mental and sexual health (Articles 7 and 16). The need for personalized medical advice and psychological support is emphasized to address the social and cultural influences on circumcision decisions. Changing cultural perceptions and the influence of societal norms on medical decision-making underscore the importance of culturally informed health policies that balance medical recommendations with respect for cultural practices.

Table 5: Thematic Analysis Summary

| Main Theme | Sub-Themes | Key Findings | Example Articles |
|-----------------------------------|--|--|---|
| Sexual Health and Function | Decreased Sensitivity and Altered Sexual Functioning | Circumcision can lead to decreased penile sensitivity and altered sexual functioning. | Bronselaer et al. (2013), Gao et al. (2015), Uberoi et al. (2022) |
| | Reduced Rates of Penile Coital Injuries | Circumcision has been linked to lower rates of penile coital injuries, contributing to safer sexual experiences. | Westercamp et al. (2017), Selino & Krawczyk (2023) |
| | Improvements in Sexual Conditions | Circumcision can improve certain sexual conditions, such as premature ejaculation and prevention of phimosis. | Gao et al. (2015), Freitas et al. (2013), La Pera et al. (2017) |

| | | | |
|---------------------------------------|---|---|--|
| Psychological Impact | Non-Consensual Circumcision and the Role of Consent | Circumcision without consent can lead to significant psychological distress, including feelings of violation and anxiety. Consent plays a critical role in mitigating negative psychological effects. | Uberoi et al. (2022), Miani et al. (2020), Bossio & Pukall (2017) |
| | Individual Perceptions and Genital Self-Image | Perceptions and satisfaction with circumcision status significantly impact psychological outcomes and genital self-image. | Ullmann et al. (2017), Selino & Krawczyk (2023) |
| | Medical Advice and Psychological Support | Personalized medical advice and psychological support are crucial in addressing the emotional and social impacts of circumcision. | Alexander et al. (2015), Uberoi et al. (2022), Miani et al. (2020) |
| Cultural and Social Influences | Changing Perceptions | Cultural and social contexts influence perceptions and practices of circumcision. Exposure to new cultures can lead to evolving views and re-evaluation of circumcision practices. | Howard-Payne & Bowman (2017), Palmer et al. (2020), Wahlberg et al. (2018) |
| | Influence on Medical Decision-Making | Societal perceptions and misperceived norms can significantly influence medical decisions regarding circumcision. | Perkins et al. (2023), Cristofari et al. (2022) |

7.2 Results Discussion

7.2.1 Long-term Psychological Trauma, Body Image, and Cognitive Dissonance

The practice of male circumcision, especially when performed without explicit consent or adequate pain management, can have lasting psychological impacts. However, it is crucial to recognize that psychological dissatisfaction primarily manifests in a small group of men and is often influenced by negative societal norms towards male circumcision. Many men who undergo the procedure in adulthood report no significant change in sensitivity but note improvements in conditions such as premature ejaculation (Articles 3, 7 and 16).

Research indicates that non-consensual circumcision can lead to significant long-term psychological trauma. Uberoi et al. (2022) emphasize that circumcision performed without consent often results in anxiety, feelings of violation of bodily autonomy, and even PTSD (Article 13). However, it is essential to balance these findings with reports from men circumcised in adulthood, who generally experience positive outcomes and improvements in

sexual health (Article 7). This highlights the role of informed consent and individual choice in mitigating negative psychological effects and enhancing the perceived benefits of the procedure.

Body image plays a crucial role in mediating the psychological impacts of circumcision. Selino and Krawczyk (2023) found that individuals' happiness regarding their circumcision status predicts better genital self-image and sexual health outcomes (Article 16). This aligns with the broader literature on body image, suggesting that positive attitudes towards one's body significantly influence psychological well-being (Article 8). Ullmann et al. (2017) support this by demonstrating that attitudes towards circumcision status are more significant in determining psychological outcomes than the circumcision status itself (Article 8). Men who are dissatisfied with their genital appearance may fear negative judgment from sexual partners, leading to anxiety and avoidance behaviors that further exacerbate feelings of inadequacy (Articles 2 and 8).

Cognitive dissonance arises when individuals circumcised in infancy or childhood experience regret and psychological distress, particularly due to the lack of choice involved in the procedure. Bossio and Pukall (2017) and Hammond (1999) note that men circumcised in adulthood report more positive outcomes compared to those circumcised neonatally, emphasizing the importance of consent in shaping psychological experiences (Article 7). Festinger's theory of cognitive dissonance (1957) explains how individuals experience mental discomfort when confronted with information that conflicts with their beliefs or decisions. For example, parents who choose to circumcise their children might rationalize their decision by emphasizing perceived health benefits or cultural acceptance, while downplaying potential risks (Article 3 and 15). Conversely, those who decide against circumcision might emphasize the importance of bodily integrity and autonomy.

A critical analysis of the studies reviewed reveals several potential biases that may affect the conclusions. For instance, some studies, such as Uberoi et al. (2022), relied on self-reported data from participants in social network groups, making it difficult to verify the real existence and representativeness of the participants (Article 13). This could introduce selection bias and affect the generalizability of the findings. Additionally, the emphasis on negative outcomes in

some studies may reflect publication bias, where studies reporting adverse effects are more likely to be published.

In summary, the integration of findings on long-term psychological trauma, body image, and cognitive dissonance underscores the importance of informed consent in circumcision practices. Ensuring that individuals have the autonomy to make decisions about their bodies can significantly reduce the psychological harm associated with circumcision. Mental health professionals and policymakers should prioritize informed consent, support positive body image, and address the potential for long-term psychological trauma to enhance the psychological well-being of those affected by circumcision.

7.2.2 Changing Cultural Perceptions of Circumcision

The perceptions and practices surrounding male circumcision are deeply embedded within cultural and social contexts and are significantly influenced by migration and societal norms. This dynamic is further compounded by the influence of perceived societal norms on medical decision-making.

Circumcision is often perceived positively within certain cultural groups as it aligns with social identity, tradition, and notions of masculinity. Howard-Payne and Bowman (2017) found that circumcision is perceived positively by South African men, aligning with cultural definitions of masculinity and improving sexual health outcomes (Article 5). This perception can be explained through Tajfel and Turner's (1979) social identity theory, which posits that individuals derive pride and self-esteem from their group memberships. Circumcision, as a culturally significant practice, reinforces group identity and cohesion, thereby enhancing individual self-concept and social standing within their communities (Articles 5 and 14).

Migration and cultural exposure significantly shape these perceptions. Wahlberg et al. (2018) observed that Somali immigrants in Sweden re-evaluate the necessity and safety of circumcision after exposure to Swedish norms and health practices (Article 10). Migration introduces new reference groups and social comparisons, leading to shifts in social identity and group norms (Article 10). Ysseldyk et al. (2010) highlight that changes in social contexts can alter the importance of certain social identities, reflecting the dynamic nature of social identities in response to migration and cultural exposure.

The influence of perceived societal norms on circumcision uptake is evident in the findings of Perkins et al. (2023), who noted that many Ugandan men undergo circumcision due to the mistaken belief that it is more universally accepted and desired than it actually is (Article 15). This can be understood through social comparison processes inherent in social identity theory. Individuals compare themselves to perceived norms within their reference groups to gain social approval and avoid marginalization, often conforming to practices believed to be socially endorsed (Articles 14 and 15).

Furthermore, it is essential to highlight that medical benefits, such as reduced rates of HIV transmission and decreased risk of other sexually transmitted infections, significantly contribute to the positive perceptions of circumcision in many communities. WHO endorses male circumcision as a preventive measure against HIV, which has proven effective in reducing transmission rates in heterosexual men by up to 60% (Article 5 and 14).

The integration of these findings highlights the powerful role of cultural and social influences on circumcision practices. Policies that are sensitive to cultural contexts are more likely to be accepted and effective. For instance, in regions where circumcision is a cultural norm, health policies should aim to provide safe and hygienic circumcision services while also educating communities about potential risks and benefits. In contrast, in areas where circumcision is not traditionally practiced, policies should focus on providing balanced information and respecting individual choices.

Additionally, effective communication strategies are essential to ensuring that individuals are making informed decisions based on an accurate understanding rather than perceived social pressures. Accurate information dissemination and support for informed decision-making are crucial to addressing both the medical and social dimensions of health behaviors. By acknowledging and respecting the fluidity of cultural beliefs and practices, health interventions can better support immigrant populations and facilitate more autonomous health decisions.

8. Methodological Discussion

The present study utilized an integrative design, which combines data from various methodologies to provide a comprehensive understanding of the research topic. The integrative design, as outlined by Whitemore and Knafl (2005), is particularly useful in synthesizing findings from diverse sources, allowing for a more holistic view of male circumcision's impacts on sexual health, psychological well-being, and sociocultural dynamics. However, this approach also has inherent weaknesses. One primary limitation is the potential for bias in study selection and interpretation. The integrative design relies heavily on the inclusion of studies that meet specific criteria, which may inadvertently exclude relevant research, thus impacting the study's comprehensiveness and introducing selection bias (Whitemore & Knafl, 2005).

Another limitation is the reliance on secondary data, which may vary in quality and methodology. While the Joanna Briggs Institute (JBI) Critical Appraisal Tools were used to assess the quality of included studies, the variability in study designs and data collection methods can pose challenges in ensuring consistent and reliable synthesis of findings ("JBI Manual for Evidence Synthesis," 2020). Additionally, the exclusion of non-English articles may have limited the scope of the review, potentially omitting valuable insights from non-English speaking regions where male circumcision practices may differ significantly.

The search strategy and eligibility criteria aimed to capture the most current research, focusing on studies published between 2013 and 2024. While this ensures the inclusion of recent findings, it may overlook historical data that could provide important context for understanding long-term trends and changes in male circumcision practices and perceptions. Moreover, the focus on peer-reviewed articles may exclude relevant grey literature, which could offer additional perspectives and findings not captured in formal publications.

8.1 Trustworthiness of the Study

The trustworthiness of this integrative review can be assessed using the criteria of credibility, transferability, dependability, and confirmability as outlined by Lincoln and Guba (1985).

Credibility refers to the confidence in the truth of the findings. The rigorous search strategy and quality assessment procedures enhance the credibility of the study. However, potential

biases in study selection and the reliance on self-reported data from included studies may affect the credibility. The use of thematic analysis following Braun and Clarke's (2006) methodology helps mitigate some biases by providing a structured approach to identifying and reporting patterns within the data.

Transferability is the degree to which the findings can be applied to other contexts. Given the diverse cultural contexts included in the review, the findings are likely transferable to other settings where male circumcision is practiced. However, the specific cultural and social nuances of different regions must be considered when applying these findings to new contexts.

Dependability involves the stability of data over time and under different conditions. The systematic approach to data collection and analysis supports the dependability of the study. However, the dynamic nature of cultural practices and evolving medical guidelines related to male circumcision may impact the long-term dependability of the findings.

Confirmability refers to the degree to which the findings are shaped by the respondents and not researcher bias. The use of multiple databases and a comprehensive search strategy supports confirmability. However, my pre-understanding and potential biases related to the topic could influence the interpretation of the data. Efforts were made to mitigate this by adhering to established methodological frameworks and ensuring transparency in the review process.

In conclusion, while this integrative review provides a comprehensive synthesis of the impacts of male circumcision, it is essential to acknowledge the methodological limitations and ethical complexities inherent in the study. Ensuring trustworthiness and addressing ethical considerations are crucial for providing balanced and reliable insights into this multifaceted issue. Future research should continue to explore the diverse perspectives and long-term outcomes of male circumcision, with a focus on informed consent and cultural sensitivity.

9. Conclusion

This integrative review highlights the multifaceted impacts of male circumcision, particularly its effects on sexual health, psychological well-being, and cultural and social dynamics. The findings reveal that, while circumcision can decrease penile sensitivity and alter sexual functioning, it also reduces penile coital injuries and improves certain sexual conditions. The psychological effects for some men are considerable, especially when performed without explicit consent, leading to long-term emotional distress. Individual perceptions and genital self-image significantly influence psychological outcomes, underscoring the importance of positive attitudes towards circumcision status. Cultural and social contexts have a significant impact on circumcision practices, with migration and exposure to new cultural norms reshaping traditional views. These insights emphasize the need for personalized medical advice, culturally informed health policies, and comprehensive psychological support to address the complex interplay of factors surrounding male circumcision. Future research should continue to explore these dimensions to inform better clinical practices and health policies.

10. Clinical Implications and Suggestions for Future Research

This integrative review highlights critical clinical implications for practitioners and researchers focusing on male circumcision. Clinicians need to be aware of the long-term psychological impacts of non-consensual circumcision, which can include anxiety, feelings of bodily violation, and altered socio-affective processing. This underscores the necessity for comprehensive psychological support for individuals circumcised without consent. The influence of circumcision on self-perception and sexual health suggests that personalized medical advice and psychological counseling should be integral to the circumcision decision-making process.

Future research should address current limitations by including a broader range of sources, such as grey literature and non-English studies, to provide a more comprehensive understanding of the impacts of male circumcision. Longitudinal studies tracking psychological and physical outcomes over time would offer valuable insights into the long-term effects. Additionally, rigorous verification of participants in online and self-reported studies is necessary to ensure the accuracy and generalizability of the findings.

Research should also explore the positive medical benefits reported by men circumcised in adulthood and how these benefits can be effectively communicated to counteract negative societal norms. Comparing psychological outcomes between men circumcised with consent and those without consent could provide more nuanced insights into the role of autonomy and informed decision-making.

Furthermore, future research should focus on providing science-based evidence to inform policy, ensuring that recommendations are grounded in rigorous scientific data rather than personal or cultural beliefs. Studies exploring changing perceptions of circumcision within immigrant communities are particularly needed to understand the dynamic interplay between cultural practices and health outcomes. Addressing these gaps will contribute to the development of more effective, culturally sensitive health policies and practices.

In summary, this review highlights the complex and multifaceted impacts of male circumcision. Future research must address existing gaps and biases to provide a more balanced and comprehensive understanding.

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Appendix 1

Summary of the reviewed articles (sorted by publication date)

| # | Article | Indication | Method | Population | Findings | Findings Summary |
|---|---|------------------------------|---|---|---|--|
| 1 | Dias, J., Freitas, R., Amorim, R., Espiridião, P., Xambre, L., & Ferraz, L. (2013). Adult circumcision and male sexual health: a retrospective analysis | Sexual dysfunction, phimosis | Retrospective analysis, McNemar test, logistic regression | 62 adult patients who underwent circumcision | Varied sexual dysfunctions post-circumcision | Increased erectile dysfunction and delayed orgasm post-circumcision Improvement in pain with intercourse |
| 2 | Bronselaer, G. A., Schober, J. M., Meyer-Bahlburg, H. F., T'Sjoen, G., Vlietinck, R., & Hoebeke, P. B. (2013). Male circumcision decreases penile sensitivity as measured in a large cohort | Effects on sensitivity | Online survey, SAGASF-M questionnaire | 1369 men aged 18 and older | Decreased penile sensitivity and sexual pleasure in circumcised men | Circumcised men reported significantly less sexual pleasure Higher discomfort and unusual sensations |
| 3 | Gao, J., Xu, C., Zhang, J., Liang, C., Su, P., Peng, Z., Shi, K., Tang, D., Gao, P., Lu, Z., Liu, J., Xia, L., Yang, J., Hao, Z., & Zhou, J. (2015). Effects of Adult Male Circumcision on Premature Ejaculation: Results from a Prospective Study in China | Premature ejaculation | Prospective cohort study, self-reported measures | 1198 men in stable, monogamous relationships in China | Improved premature ejaculation outcomes | Improved ejaculatory control and sexual satisfaction post-circumcision |
| 4 | Alexander, S. E., Storm, D. W., & Cooper, C. S. (2015). Teasing in school locker rooms regarding penile appearance | Social acceptance | Survey, Wilcoxon rank-sum test, Pearson chi-square test | 290 undergraduate students at the University of Iowa | Common teasing about penile appearance | Teasing often focused on penile size and circumcision status Limited impact on desire for different penile appearance |

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| 5 | Howard-Payne, L., & Bowman, B. (2017). "I am the man": Meanings of masculinity in perceptions of voluntary medical adult male circumcision for HIV prevention in South Africa | Masculinity, health benefits | Grounded theory, semi-structured interviews | 30 adult men from Johannesburg, South Africa | Varied perceptions of masculinity related to circumcision | <p>Circumcision seen as enhancing masculinity by some</p> <p>Traditional vs. medical circumcision views differ widely</p> <p>Circumcision is viewed positively for HIV prevention but conflicts with traditional masculinity views</p> |
| 6 | La Pera, G., De Luca, F., Guerani, A., Palmieri, A., & Franco, G. (2017). Prevalence of phimosis and foreskin sliding abnormalities in male adolescents and their correlation with later onset of first sexual intercourse | Phimosis, delayed sexual intercourse onset | Cross-sectional study, chi-square test, prevention campaign with clinical genital examinations and questionnaires. | 552 adolescents high school students in Italy | Correlation between phimosis and delayed sexual experiences | <p>Higher prevalence of phimosis among those who had not had sexual intercourse</p> <p>Phimosis and foreskin abnormalities delay sexual debut</p> |
| 7 | Bossio, J. A., & Pukall, C. F. (2017). Attitude Toward One's Circumcision Status Is More Important than Actual Circumcision Status for Men's Body Image and Sexual Functioning | Body image and sexual functioning | Online survey, MANOVA | 811 men from various geographic locations | Attitude toward circumcision status impacts body image and sexual functioning | <p>Attitudes towards circumcision status significantly impact body image and sexual functioning.</p> <p>Positive attitudes correlate with better body image and sexual functioning</p> |

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| 8 | Ullmann, E., Licinio, J., Barthel, A., Petrowski, K., Oratovski, B., Stalder, T., Kirschbaum, C., & Bornstein, S. R. (2017). Circumcision does not alter long-term glucocorticoids accumulation or psychological effects associated with trauma- and stressor-related disorders | Long-term effects of circumcision | Cross-sectional study, hair glucocorticoid analysis, and psychological effects | 20 Jewish men in Germany | No long-term psychological effects from circumcision | Circumcision does not impact long-term stress or trauma-related disorders Similar stress and psychological profiles between circumcised and uncircumcised men |
| 9 | Westercamp, N., Mehta, S. D., Jaoko, W., Okeyo, T. A., & Bailey, R. C. (2017). Penile coital injuries in men decline after circumcision: Results from a prospective study of recently circumcised and uncircumcised men in western Kenya | Reduction of penile coital injuries | Longitudinal community-based cohort study | 3186 participants (1588 newly circumcised, 1598 uncircumcised) young men in Kenya | Decreased penile coital injuries post-circumcision | Significant decline in injuries like cuts and pain post-circumcision |
| 10 | Wahlberg, A., Essén, B., & Johnsdotter, S. (2018). From sameness to difference: Swedish Somalis' post-migration perceptions of the circumcision of girls and boys | Cultural and religious post-migration perceptions | Qualitative study, interviews, thematic analysis | 63 Somali immigrants in Sweden | Shift in perceptions towards male circumcision | Male circumcision viewed as obligatory while female circumcision views are mixed |
| 11 | Palmer, E., Rau, A., & Engelbrecht, M. (2020). Changing cultural practices: A case study of male circumcision in South Africa | Cultural identity and health | Single-case study with in-depth interviews over three months, thematic analysis | 1 25-year-old Black South African male | Cultural dynamics of traditional and medical male circumcision | Conflict between traditional and medical approaches to circumcision. Traditional circumcision remains significant culturally, but medical one is gaining acceptance. |
| 12 | Miani, A., Di Bernardo, G. A., Højgaard, A. D., Earp, B. D., Zak, P. J., Landau, A. M., Hoppe, J., & Winterdahl, M. (2020). Neonatal male circumcision is associated with altered adult socio-affective processing | Long-term socio-affective effects | Cross-sectional study, online survey | 619 adult men, 408 circumcised as neonates vs. 211 non-circumcised | Long-term effects on socio-affective traits | Circumcised men reported higher attachment anxiety, lower emotional stability, and higher sexual libido |

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| 13 | Uberoi, M., Abdulcadir, J., Ohl, D. A., Santiago, J. E., Rana, G. K., & Anderson, F. W. J. (2022). Potentially under-recognized late-stage physical and psychosexual complications of non-therapeutic neonatal penile circumcision: a qualitative and quantitative analysis of self-reports from an online community forum | Long-term physical, psychological complications | Qualitative and quantitative analysis of forum posts | 109 users from a Reddit community discussing circumcision grievances | Long-term complications from neonatal circumcision | Reports of decreased sensitivity, pain, psychological distress, and sexual complications |
| 14 | Cristofari, N. V., Rodriguez, V. J., Jones, D. L., & Weiss, S. M. (2022). Understanding barriers and facilitators to voluntary medical male circumcision and Spear and Shield uptake in Zambian community health centers | Increase of voluntary circumcision uptake for HIV prevention | Mixed-methods, CFIR framework | 358 staff at 96 community health centers in Zambia | Factors affecting circumcision program success | Key barriers included staffing and space; success factors included strong leadership and community engagement |
| 15 | Perkins, J. M., Kakuhikire, B., Baguma, C., Jeon, S., Walker, S. F., Dongre, R., Kyokunda, V., Juliet, M., Satinsky, E. N., Comfort, A. B., Siedner, M. J., Ashaba, S., & Tsai, A. C. (2023). Male circumcision uptake and misperceived norms about male circumcision: Cross-sectional, population-based study in rural Uganda | Influence of perceived social norms on circumcision uptake | Cross-sectional, population-based study | 1566 adult participants (698 men and 868 women) in rural Uganda | Influence of perceived norms on circumcision decisions | Misperceptions about circumcision prevalence affect individual circumcision decisions |

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| 17 | Selino, S., & Krawczyk, R. (2023). Happiness with Circumcision Status, Not Status Itself, Predicts Genital Self-Image in a Geographically Diverse Sample | Psychological impacts of circumcision status | Online survey with hierarchical linear regressions and factorial ANOVA | 205 diverse international sample online | Happiness with circumcision status linked to better genital self-image | Positive genital self-image associated with happiness regarding circumcision status Happiness with circumcision status predicts better genital self-image and body exposure during sexual activities |
| 17 | Hammond, T., Sardi, L. M., Jellison, W. A., McAllister, R., Snyder, B., & Fahmy, M. a. B. (2023). Foreskin restorers: insights into motivations, successes, challenges, and experiences with medical and mental health professionals – An abridged summary of key findings | Personal dissatisfaction with circumcision | Online survey | 1790 men involved in foreskin restoration | Motivations and challenges of foreskin restoration | Majority reported emotional and physical benefits; challenges included time commitment and interactions with health professionals Foreskin restoration driven by physical, sexual, and emotional motivations; significant challenges reported |