**Review**

# Social and psychological effects of circumcision: A narrative review

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ABSTRACT

Descriptions of penile circumcision have focused primarily on disease, dysfunction, or sensation, with relatively little consideration of the psychological and psychosocial implications of the procedure. It is also reported to be of interest regarding potential qualitative changes in the subjective experience of sexual activity following changes in penile anatomy (removal of the foreskin) or related sexual biomechanics. Circumcision indeed has psychological, psychosocial, and psychosexual effects. The differences in circumcisions performed during infancy, childhood, and adulthood are remarkable. There are also potential psychosocial effects on parents who may or may not choose circumcision for their children. We argue that additional attention should be paid to the potential for long-term effects of the procedure, which may not be appropriately considered when the patient is an infant or child.

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## Introduction

The primary focus of research on penile circumcision (partial or complete removal of the penile prepuce or foreskin) has remained concerned with issues of hygiene and disease (for gender identity inclusivity, the terms penile circumcision or genitally intact person). A 2012 American Academy of Pediatrics technical report drew attention to the effects of circumcision on the risk of disease in men and their sexual partners. There has been no discussion of the psychological or psychosocial effects of penile circumcision in circumcised children or adults or the effects of parents choosing circumcision for their children. Similarly, there has been no discussion of potential changes in subjective sexual experiences, behaviors, or partner responses to these changes (Circumcision TFO, 2012).

Research on the psychological, psychosocial, and psychosexual aspects of circumcision is relatively scarce, often with small samples or observational studies without a clear comparison or control group. Most studies do not reach moderate quality for the GRADE approach, and even studies with relatively robust designs, such as randomized controlled trials, rely only on limited conditions (for example, adult circumcision in specific populations) and

inadequate measurements (Alonso et al., 2016).

From a global perspective, most of the world does not practice circumcision; More than 80% of men are uncircumcised. Most circumcised men are Muslim or Jewish; The USA is the only country in the world to circumcise most of its male infants (60%) for non-religious reasons. Other countries that circumcise a significant minority of male infants for non-religious reasons include Canada and Australia (Marshall et al., 1980; Wallerstein et al., 1985).

## Infant pain and behavioral response to circumcision

To understand the long-term effects of circumcision, it is necessary to review its effects on the baby. The problem of baby pain often comes up in discussions about circumcision. Some doctors believe early studies claim that the neonatal nervous system is not sufficiently developed to record or transmit pain impulses (Marshall et al., 1980). According to a more recent study, this belief is doctors' 'master myth' about infant pain (Katz et al., 1977; Schechter et al., 1989). Babies' inability to resist physically and not end the circumcision process makes relieving their pain easier. Some doctors minimize foreskin pain by calling it "discomfort" or likening it to injection pain, but empirical studies have rejected these studies. Anatomical, neurochemical, physiological, and behavioral studies confirm that the newborn's response to pain is 'higher than that in adult subjects' (Anand et al., 1987).

Infants circumcised without anesthesia (reflecting general practice) have an increased risk of significant pain, choking, and difficulty breathing (Lander et al., 1997). Increases in heart rate of 55 units have been noted, i.e., 1.5 times the baseline rate (Benini et al., 1993). After circumcision, blood cortisol levels increased 3-4 times compared to pre-circumcision (Gunnar et al. 1985). Circumcision as a surgical procedure has been described as 'one of the most painful practices in neonatal medicine' (Ryan et al., 1994). The researchers reported that 'Elderly patients would not tolerate this pain level.' Although using a pacifier during circumcision reduces crying, it does not affect the hormonal pain response. A baby may also go into a state of shock to escape the overwhelming pain. Therefore, while there may be no crying, other body signals always indicate severe pain during circumcision (Stang et al., 1988). There is a difference of opinion among physicians about anesthesia during circumcision. Before the mid-1980s, anesthesia was not used because the medical community rejected infant pain.

Although there is an indication that the risk is minimal, most circumcision practitioners do not use anesthesia. When an anesthetic is used, it relieves only some, if not all, of the pain, and its effect decreases before the postoperative pain (Stang et al., 1988). Behavioral changes in infants resulting from circumcision are widespread and can interfere with parent-infant bonding and feeding. The Circumcision Task Force of the American Academy of Pediatrics draws attention to increased irritability, altered sleep patterns, and changes in infant-mother interaction after circumcision (Schoen et al., 1989). Canadian researchers reported that circumcised boys had more behavioral pain responses and cried significantly longer than intact boys during 4-6 months of vaccinations. The authors believe that 'circumcision can produce long-lasting changes in infant pain behavior.' This study suggests that circumcision may permanently change the structure and function of developing neural pathways (Taddio et al., 1997).

**Circumcision as trauma and its social effects**

Studies investigating circumcision pain have mentioned circumcision as traumatic. The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), published by the American Psychiatric Association, helps discuss the trauma-related trauma related to circumcision. Describing a traumatic event includes an event beyond the human experience, such as assault (from physical to sexual), torture, and a threat to one's physical integrity. The attack is physical; Torture is severe pain or suffering. It does not necessarily consider intent or purpose but focuses on the act and the victim's experience. From the infant's perspective, all elements of the DSM-IV definition of traumatic events apply to circumcision; The procedure involves forcible restraint, cutting off part of the penis, and excruciating pain. Circumcision traumatizes the infant based on the nature of the experience and extreme physiological and behavioral responses. The question of an infant's capacity to experience trauma needs to be stressed. Wilson, a nationally renowned author on trauma research, supports the idea that trauma can occur at any point in the life cycle from infancy to the last years of life' (Eth et al., 1985). In addition, DSM-IV states that traumatic effects 'can occur at any age.' Clinicians have documented that children are particularly vulnerable to trauma. Psychic trauma seems to have a lasting effect on children, no matter how small they are when traumatized (America Psychiatric Association, 2013). In addition, as the child's age at the time of trauma decreases, psychopathology increases (Green, 1983). Trauma dissociation results in separating traumatic experience and associated emotional pain from awareness (Noyes et al., 1977). Dissociation is a psychological survival response. A traumatized child changes reality to maintain his attachment to the mother and 'forgets' that the trauma has occurred (Ellison et al., 1996). In changing reality, the child is also changed. Based on neurological research, painful experience and trauma in childhood can cause long-term physiological and neurochemical changes in the central nervous system. The possibility of circumcision resulting in traumatic effects on older children may be better explored due to more accessible access to memory and the child's ability to speak. There are two reports examining the ritual performed on children in Turkey without anesthesia. In the first report, testing of subjects aged 4-7 years shortly before and after the ritual concluded: 'The child perceives circumcision as an aggressive attack on his body that injures, humiliates, and in some cases destroys him.' According to this study, circumcision caused an increase in aggression and weakening of the ego, leading to withdrawal, decreased functionality, and adjustment (Cansever et al., 1965; Bremner et al., 2003).

The second study observed that children were 'terrified' during the procedure, and 'each boy looked at his penis immediately after circumcision to make sure it was not cut off' (Bremner et al., 2003). An 8-year-old fell 'unconscious' while cutting and subsequently developed a stuttering problem. A few weeks later, parents interviewed reported that their children exhibited increasingly aggressive behavior and had nightmares. Castration anxiety from circumcision may be related to the finding that symptoms from personal injury trauma often include fear of repetition of the trauma. The traumatic effect of surgery on children is well known. For example, the psychiatric literature documents the severe long-term effects of

childhood tonsillectomy (Lipton et al., 1962). Psychiatrist David Levy reviewed the case histories of 124 children who developed psychological problems after a surgical procedure. He observed that the younger the child, the higher the likelihood of an adverse reaction to surgery. The most severe anxiety reactions were observed in two boys who had undergone penile surgery. Meatotomy for one boy at age four and circumcision at age 6 for another; both exhibited destructive behaviors and suicidal urges (Levy 1945).

**Psychosocial effects of circumcision in the long term**

Without published studies, current knowledge of male circumcision is usually based on reports of self-selected men who contact the Circumcision Resource Center (CRC) and other circumcision information organizations (Hammond 1977). Reported emotions often include anger, a sense of loss, shame, a sense of being victimized and violated, fear, insecurity, grief, and jealousy of intact men. The overwhelming majority of these men were circumcised as newborn babies. The memory of this event is not in their conscious awareness. As a result, the connection between current feelings and circumcision may not be clear. However, some men attribute many negative feelings to their circumcision. If a child grows up in a society with uncircumcised children, it is likely that someday the circumcised child will understand the difference. Under certain circumstances, the realization that a part of the penis has been cut can have trauma-like consequences, such as repetitive, unwanted thoughts and images (Hammond 1977; Kara 2022a).

The following reasons explain why circumcised men reveal so little about how they feel:

I. Accepting beliefs and cultural assumptions about circumcision prevents men from noticing and feeling dissatisfaction; for example, when he was young, he was told it was necessary for health reasons and was not questioned.

ii. The emotions that may arise with circumcision are harrowing; suppressing them saves men from this pain. If emotions become conscious, they can still be suppressed.

iii. Those who have feelings about circumcision are often afraid to express their feelings because these feelings may be rejected or ridiculed.

iv. Verbal expression of emotions requires conscious awareness. Because early traumas are often unconscious, associated emotions are expressed nonverbally through behavioral, emotional, and physiological forms.

Attitudes towards people, life, and the future can also be affected; For example. A typical attitude stemming from childhood trauma is a lack of confidence and a sense of vulnerability. Circumcision, emotional pressure, fear of disclosure, and a lack of awareness and understanding of non-verbal expression help keep the feelings of circumcision hidden. Although men are unaware of the effects of circumcision, it is reported that the fear of somehow missing their penis is common in American culture (Kara 2022b). Commercial interests responded to this fear by advertising various penis enlargement methods in men's magazines. Men's preoccupation with the penis is also reflected in a survey of what men find attractive in women in men. The data showed that men greatly overestimated the importance of penis size as a physical trait that attracts women (Gagnon et al., 2017). The effect of circumcision on this result is unknown. Negative feelings about the penis are associated with body image; this includes

value judgments about how the body appears to others and can significantly impact how men live their lives (Kara 2022b). In addition, the concepts of self and body image are interrelated and affect personal psychology. A diminished body image can reduce a person's social and sexual life. Those with bodily loss fear the judgment of others and the weakening of personal relationships. For example, psychological, sexual, and social effects have been reported in women after mastectomy. They felt less attractive, less desirable, and less sexually satisfied after surgery (Jones et al., 1989; Margolis et al., 1990). Poor body image can also affect motivation and reduce feelings of competence, status, and power. In addition, depression and suicidal attitudes were also recorded (De Leo et al., 1991; Inal Azizoğlu, 2022). Although there are differences between circumstances and age at the time of loss, the feeling that a significant part of the body is missing is common in mastectomy and circumcision (for some men). The feeling of 'not being a whole man' can be particularly distressing. Since masculinity is typically identified with the penis, an aspect of the self can be identified with a particular body part. When this part is injured, there is usually a corresponding psychological scar on the self and loss of self-esteem. It is unclear how much of a link there may be between low male self-esteem (De Leo et al., 1991).

Psychopathology is not always detectable by trained clinicians. The effects of circumcision trauma can be chronic and embedded so deeply that it is challenging to distinguish them from effects from personality traits or other causes. In addition, where circumcision is common, its effects are common and can be interpreted as usual. As with other traumas, the psychopathological outcome may vary, but preliminary reports appear to be consistent with the symptom pattern of post-traumatic stress disorder (PTSD) (Goldman 1999). Examples of PTSD symptoms about circumcision include recurring thoughts and dreams and avoidance of them. Emotional lethargy and inappropriate anger are possible long-term effects of circumcision that warrant investigation. Reduced capacity for emotional expression or the 'numb' response is a more likely PTSD symptom with increased time after the traumatic event. Victims of violence usually have an anger problem and they direct it to others either inwardly or outwardly (Stinson 1973). Adult symptoms can be considered as delayed or chronic psychological effects of circumcision. The link between adult circumcision, loss of sensitivity, and impotence has been reported in the medical literature (Stinson 1973). Because infant circumcision also reduces sexual sensitivity, circumcision is likely to be an unknown factor in the high rates of impotence in American men and is also detrimental to male psychological health as a relationship. According to a randomized study of 1290 men aged 40-70 years, 52% reported impotence ranging from minimal to complete. This rate ranged from ~40% at age 40 to 67% at age 70. Higher rates of impotence were associated with increased levels of anger and depression. Self-esteem was also lower in impotent men (Cogen et al., 1990; Feldman et al., 1994).

## Conclusion

There is strong evidence that circumcision is overwhelmingly painful and traumatic. Behavioral changes were observed in circumcised babies six months after circumcision. The physical and sexual loss from circumcision is increasingly recognized, and some men have a strong sense of dissatisfaction with circumcision. The potential negative impact of

circumcision on the mother-child relationship is evident in the distressing reactions of some mothers and the behavioral changes of infants. The disrupted mother-infant bond has far-reaching developmental effects and may be one of the most damaging effects of circumcision. The long-term psychological effects associated with circumcision can be challenging to detect because the consequences of early trauma are rare and, under exceptional circumstances, noticeable to the survivor. However, a lack of awareness does not mean that there is no influence on thinking, emotion, attitude, behavior, and functioning, which are often closely linked. In this way, early trauma can change an entire life, whether the trauma is consciously remembered or not.

## Authors Contributions

The author carries out tasks from data collection, data analysis, making discussions to making manuscripts

## Conflicts of Interest

All research teams agree with the final results of this study, and there is no conflict of interest in this study.

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