



## REVIEW

### Impact of female genital mutilation on childbirth and sexuality. A systematic review

Repercusiones de la mutilación genital femenina en el parto y la sexualidad. Una revisión sistemática

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#### ABSTRACT:

**Introduction:** Female genital mutilation is a practice with deep cultural roots in some African and Asian countries, justified as a rite of passage into adulthood. Various international organizations consider it a form of violence against women, with negative repercussions on their physical, psychological, reproductive, and sexual health.

**Material and Methods:** To understand its repercussions on reproductive health, a systematic review of recent scientific literature was conducted, selecting six articles. The search was conducted between November 2023 and September 2024 in databases such as PubMed, Web of Science, Scopus, Embase, the Cochrane Library, and CINAHL. DeCS and MeSH descriptors were used in combination with Boolean operators. Study selection followed the PRISMA 2020 and Cochrane guidelines, applying inclusion and exclusion criteria. Two researchers independently assessed the relevance of the studies, with a third resolving discrepancies. The methodological quality and risk of bias of the articles were assessed using the SIGN scale and JBI items.

**Results:** Six scientific articles published between 2018 and 2024 in various scientific journals were analyzed. All six articles included samples from different African countries.

**Conclusion:** The literature reviewed establishes a relationship between female genital mutilation and longer labor duration, a higher rate of cesarean sections, more perineal tears, a greater need for episiotomy, and a higher risk of postpartum hemorrhage.

**Key words:** Reproductive Health; Genital Mutilation Female; Parturition; Anthropology Cultural.

## RESUMEN:

**Introducción:** La mutilación genital femenina es una práctica con fuerte arraigo cultural en algunos países africanos y asiáticos, justificada como rito de paso a la adultez. Diversos organismos internacionales la consideran una forma de violencia contra las mujeres, con repercusiones negativas en su salud física, psíquica, reproductiva y sexual.

**Material y Método:** Para conocer sus repercusiones en la salud reproductiva, se realizó una revisión sistemática de la literatura científica reciente, seleccionando seis artículos. La búsqueda se llevó a cabo entre noviembre de 2023 y septiembre de 2024 en bases de datos como PubMed, Web of Science, Scopus, Embase, Cochrane Library y CINAHL. Se utilizaron descriptores DeCS y MeSH combinados con operadores booleanos. La selección de estudios siguió las guías PRISMA 2020 y Cochrane, aplicando criterios de inclusión y exclusión. Dos investigadores evaluaron la pertinencia de los estudios de manera independiente, con un tercero resolviendo discrepancias. Se valoró la calidad metodológica y el riesgo de sesgos de los artículos con la escala SIGN e ítems de JBI.

**Resultados:** Se analizaron 6 artículos científicos publicados entre 2018 y 2024 en distintas revistas científicas. Los 6 artículos contaban con muestra de distintos países del continente africano.

**Conclusión:** La literatura revisada establece relación entre la mutilación genital femenina y una mayor duración del parto, mayor índice de cesáreas, más desgarros perineales, mayor necesidad de episiotomía y mayor riesgo de hemorragia puerperal.

**Palabras clave:** Salud reproductiva; Mutilación genital femenina; Parto; Antropología Cultural.

## INTRODUCTION

Human history is full of ethnographic examples demonstrating how people have damaged their own bodies for cultural or religious reasons. Genitals have been particularly affected due to sexual taboos, the maintenance of hierarchies, and rites of passage into adulthood. Until the 1990s, the term "female circumcision" was used for various interventions in the female genitalia, creating a false parallel with male circumcision, despite differences in indication, performance and health consequences <sup>(1,2)</sup>.

In the early 90s, at the III Conference of the Inter-African Committee on Traditional Practices Harming the Health of Women and Children, "Female Genital Mutilation or Ablation" (hereinafter FGM/C) was adopted, disassociating the term from female circumcision or excision <sup>(3)</sup>.

The World Health Organization (WHO) defines FGM/C as any procedure that involves the partial or total resection of the external genitalia of the woman for cultural or nontherapeutic reasons <sup>(4)</sup>. This practice does not offer biological benefits and has a significant negative impact on women's health and well-being, causing physical and psychological complications. It is common in about 29 countries in Africa, Asia, and the Middle East, where it is performed as a cultural rite of passage into adulthood, associated with recognition of adult social status <sup>(5,6)</sup>.

At the international level, various organizations consider FGM/C to be a form of gender-based violence and a violation of the human rights of women and girls. FGM/C is considered the most widespread traditional practice in the world and the most violent against women's integrity <sup>(7)</sup>.

FGM/C is performed on girls between the ages of 0 and 15, most commonly between 4 and 8, usually before their first menstruation. FGM/C is performed in group ritual ceremonies as a rite of passage, usually by older women in the group and under unhygienic conditions <sup>(8)</sup>. These practices reinforce androcentric ideals and define feminine roles from an early age. Although each cultural group has its own reasons for maintaining FGM / C, social pressure from community leaders and widespread acceptance of the group are common. Feminine roles in these groups are linked to docility and obedience, and FGM/C is not seen as abuse, but rather as a liberating practice. Clitoris is considered a masculine element that must be eliminated to allow for a woman's full social and individual development <sup>(6,9)</sup>.

Due to the international concern surrounding FGM/C, various studies have addressed issues ranging from prevention to post-mutilation complications, including legislation and traditions for the practice. The first study was published in 1992 by the International Federation of Gynecology and Obstetrics <sup>(5)</sup>.

Subsequently, important work has been published on this topic. For example, Nzinga et al., in 2021, conducted a meta-analysis of five studies linking FGM/C and women's sexual health. This study found a significant decrease in the sexual function assessment questionnaire score for women with FGM/C compared to women without FGM/C. Furthermore, regardless of the type of FGM/C, women with type III FGM / C performed below the recommended threshold. Similarly, those with FGM/C type III performed significantly lower than those with FGM/C type I and II <sup>(10)</sup>.

In 2016, Biglu and her research unit conducted a case-control study to examine the association between FGM/C and impaired female sexual function. Participants completed the Female Sexual Function Index questionnaire. The results showed that women with FGM/C experience a significantly reduced level of sexual desire, arousal, lubrication, orgasm, and satisfaction. Furthermore, they experience more pain during intercourse due to damage to the clitoral nerves and FGM/C scarring, which can cause tearing during intercourse. The study concluded that there is a significant association between FGM/C and decreased female sexual function <sup>(11)</sup>.

In 2021, Ezeoke et al. conducted a self-administered survey of 2,000 adolescent girls aged 13 to 19 years of age from public and private schools in central and northern Nigeria to assess their readiness to protect their future daughters from FGM/C. The results showed that 32.2% of the participants supported the execution of FGM / C in their future daughters, mainly associated with low social class and the belief that it prevents sexual promiscuity. However, 40.7% were aware of efforts to eradicate FGM/C and suggested education, community reorientation, and media announcements to combat the practice <sup>(12)</sup>.

On the other hand, Smolak conducted a multilevel study in 2014, looking at age, education, ethnicity, religion, household and community, to assess the significance of differences in HIV status. The findings of this study showed an association with the HIV status of women, but no association with a decrease in risky sexual behavior <sup>(13)</sup>.

In 2018, Gonzalez-Timoneda's team conducted a descriptive cross-sectional study using a self-administered questionnaire among 321 healthcare professionals, including family physicians, pediatricians, gynecologists, nurses, midwives and social workers. The objective was to assess their perceptions, knowledge, attitudes, and practices

about FGM / C. Only 6.3% correctly identified the FGM / C typology and the countries where it is prevalent (the majority had received information or were self-taught). The study concludes that a multidisciplinary and cross-cultural approach is necessary to address FGM / C, in addition to implementing preventive and awareness-raising measures <sup>(14)</sup>.

Some 200 million women worldwide are estimated to be victims of fetuses and around 30 million girls are at risk <sup>(7)</sup>.

In Spain, migratory flows began to increase in the 1990s, with a significant percentage of migrants coming from countries where FGM/C is widespread. It is hypothesized that they take advantage of trips to their countries of origin to perform these practices on girls (15). The importance of this issue is given by the violation of the dignity and rights of women and girls, violating their freedom and safety <sup>(16)</sup>.

It is crucial that healthcare professionals are knowledgeable and involved in providing quality transcultural care and health education on short- and long-term complications. Legal commitment is also necessary to prevent these discriminatory and violent practices that endanger women's lives. Preventing FGM/C is essential, and nursing plays a key role <sup>(17)</sup>.

The North American Nursing Diagnosis Association (NANDA) in the 2018-2020 edition included the nursing diagnosis of "[00272] Risk of Female Genital Mutilation", where confirmation of the role of nursing as a key piece for the detection of the population at risk is evident <sup>(18)</sup>. Similarly, there is a proposal for a new diagnosis, "Post Female Genital Mutilation Syndrome," made by different nurses internationally, which includes deterioration of various health domains <sup>(19)</sup>.

Therefore, due to the reasons stated above, the relevance of this systematic review of scientific literature is justified.

## **MATERIAL AND METHOD**

### **Objective**

The main objective of this review was to identify the repercussions of genital mutilation of women on the process of childbirth and its relationship with female sexuality.

### **Design**

A systematic review of the literature was conducted following the PRISMA 2020 and Cochrane recommendations on the consequences of female genital mutilation on women's reproductive health. To this end, a research question was defined, the main objective of the review was established, a review protocol was developed and registered in the Open Science Framework (OSF) (<https://doi.org/10.17605/OSF.IO/CKVUW>), a database search strategy was used, data were extracted and synthesized, the methodological quality and risk of bias of the studies were analyzed, and the results were discussed.

## Information sources

A bibliographic search was carried out between November 2023 and September 2024, using the information available in the following general (PubMed, Web of Science, Scopus, Cochrane Library, and Embase) and specific (CINAHL) databases, between the years 2018 and 2024.

## Search strategy

Relevant Health Sciences keywords (DeCS and MeSH) were selected and joined using Boolean terms (AND and OR) with parentheses and quotation marks, resulting in a single search strategy for the databases. The search strategy was as follows: (('circumcision, female') AND ("impacts on health" OR "obstetric labor complications" OR "reproductive health" OR gynecology)).

## Screening process

Two researchers conducted a selection of studies, independently evaluating their relevance according to previously established inclusion criteria. In case of doubt, a third researcher with 15 years of experience in research methodology evaluated discrepancies. In this first phase, a Kappa index of 0.93 was obtained, indicating a high concordance between the two researchers.

After applying the search criteria, a total of 849 articles were identified, of which 72 were duplicated in the different databases searched. This duplication process was performed using the Zotero® bibliographic manager.

## Eligibility criteria

Inclusion criteria were applied, screening for: 1) articles published between 2018 and 2024; 2) articles published in English and Spanish; 3) studies whose participants were women.

Subsequently, exclusion criteria were applied: 1) articles whose title and abstract do not fit the scope of this review; 2) publications based on secondary work, such as literature reviews, systematic reviews, and meta-analyses; 3) articles on unfinished work; 4) articles whose full texts do not fit the scope of this review.

## Methodology quality and risk of bias in included studies

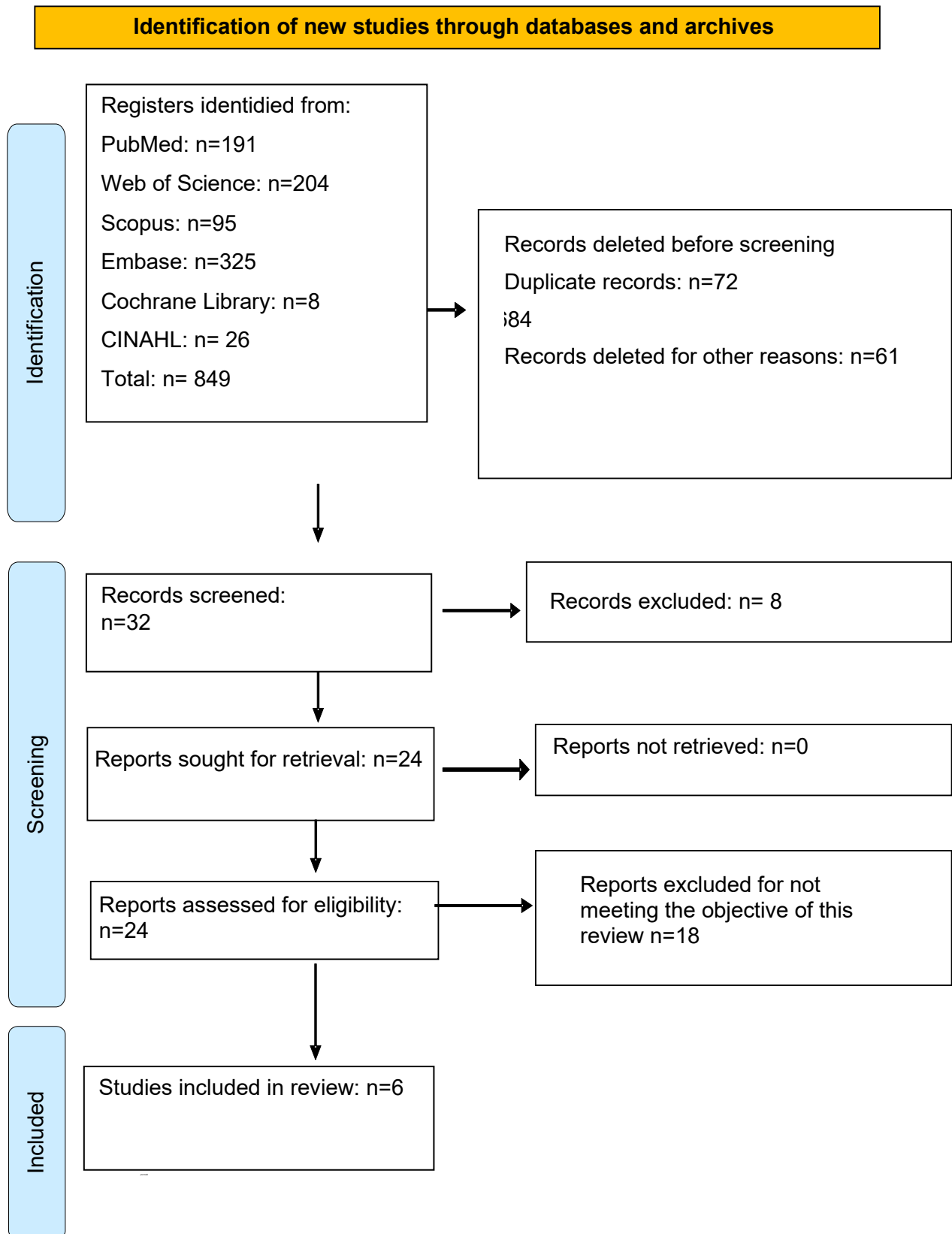
The methodological quality of the studies included was assessed using items from the Joanna Briggs Institute appropriate for the design of these studies <sup>(20)</sup>. The SIGN scale was applied to the 6 selected articles to assess their risk of bias <sup>(21)</sup>.

## RESULTS

The implementation of the aforementioned search strategy identified 849 articles, which were subsequently selected according to the purposes of this study until the

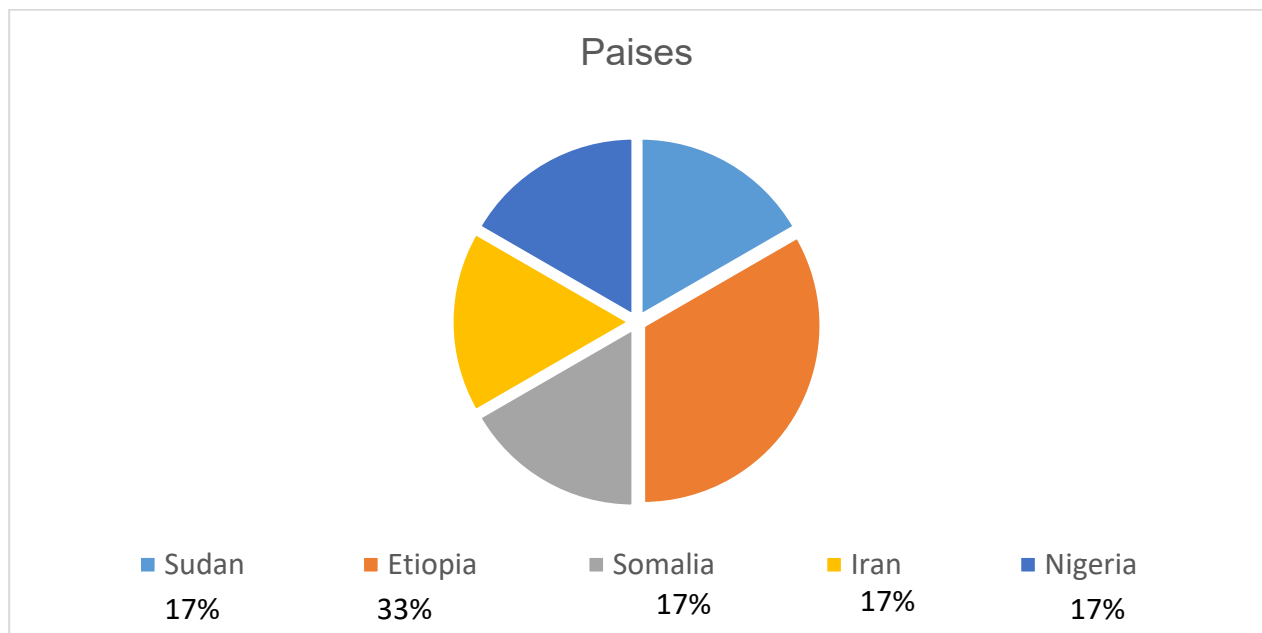
study selection was reached (Figure 1). Finally, this review includes six studies whose content is analyzed.

**Figure 1:** PRISMA flow chart of the study. Source: Own elaboration.



The articles analyzed provide evidence on population groups from different countries that are distributed as shown in the following illustration (Figure 2).

**Figure 2:** Origin of the studied population



Regarding the methodological quality of the cohort studies, the only items not met were: "Was the follow-up time reported and was it sufficient for the outcomes to occur?" ( $n = 2$ ), "Was follow-up complete and, if not, were the reasons for loss to follow-up described and explored?" ( $n = 3$ ), and "Were strategies used to address incomplete follow-up?" ( $n = 3$ ). In the cross-sectional studies, the items "Were confounders identified?" ( $n = 2$ ) and "Were strategies to address confounders stated?" ( $n = 2$ ) were not met.

The results obtained from the included studies are described below. First, the most relevant characteristics of the studies analyzed are presented (Table 1). Finally, the main results on the consequences of female genital mutilation on female reproductive health are discussed.



**Table 1:** Characteristics of the included studies

Title, author, year, risk of bias, and methodological quality	Design and sample	Objectives	Results
<p>“The impact of female genital mutilation/ cutting on obstetric outcomes and its management” Akpak YK, Yilmaz I.<sup>(22)</sup> 2022 SIGN: 2+ JBI: 9/11 items</p>	<p>Retrospective cohort study. N= 220 pregnant women. (n= 110 with FGM/C and 110 without FGM/C).</p>	<p>To determine the obstetric and neonatal effects of FGM/C in pregnant women in a homogeneous group.</p>	<p>Comparison between the FGM/C group and the non-FGM/C group showed: - a higher number of cesarean sections [n=20 (20%)] vs [n=9 (8.2%)], p=0.03 - a prolonged second stage of labor [61.4 +/- 52.9 / 28.4 +/- 39.1 (min +/- SD)], p=0.04 - more episiotomies and perineal tears [n=47 (42.7%)] vs [n=17 (15.4%)], p=0.001 - more bleeding [n = 12 (10.9%)] vs [n=3 (2.7%)], p=0.001.</p>
<p>“A prospective cohort study of the relationship of female genital mutilation with birth outcomes in Somalia” Kulaksiz D et al.<sup>(23)</sup> 2022 SIGN: 2+ JBI: 11/11 items</p>	<p>Prospective cohort study. N=268 pregnant women (n=134 pregnant women with FGM/C and n=134 pregnant women without FGM/C).</p>	<p>To assess birth outcomes in women with FGM among women in Somalia.</p>	<p>The comparison between the FGM/C group versus the non-FGM/C group showed the following. -Second stage of labor (74.3 +/- 26.8) vs (45.6 +/- 25.4) p = 0.004. Difference in hemoglobin after delivery [9.5 +/- 0.9 vs 10.1 +/- 1.0] p = 0.042 -Caesarean sections [n = 19 (14.17%)] vs [n = 9 (6.71%)] relative risk (RR) of 2.11 (1.05-3.17) and p = 0.036 -Perineal tears [n = 21 (15.67%)] vs [n = 9 (6.71%)] RR 2.48 (1.28-3.68) and p = 0.033</p>



Title, author, year, risk of bias, and methodological quality	Design and sample	Objectives	Results
<p>"The effect of female circumcision on maternal and neonatal outcomes after childbirth: a cohort study"</p> <p>Rabiepour S, Ahmadi Z. <sup>(24)</sup> 2023</p> <p>SIGN: 2+</p> <p>JB1: 9/11 items</p>	<p>Prospective cohort study. N=320 pregnant women (n=160 pregnant women with FGM and n=160 pregnant women without FGM)</p>	<p>To investigate the effect of female circumcision on maternal and neonatal outcomes.</p>	<p>The comparison between the FGM/C group and the non-FGM/C group showed:</p> <ul style="list-style-type: none"> <li>-Caesarean sections [n=94 (58.8%)] vs [n=100 (62.7%)] p=0.42</li> <li>-Episiotomy (62.5% type I) and (37.5% type II) p=0.006</li> <li>-Postpartum hemorrhage p=0.36</li> <li>-Prolonged second stage of labor p=0.03</li> </ul>
<p>'Female genital mutilation and obstetric outcome: A cross-sectional comparative study in a tertiary hospital in Abakaliki South East Nigeria"</p> <p>Anikwe CC et al. <sup>(25)</sup> 2019.</p> <p>SIGN: 2+</p> <p>JB1: 6/8 items</p>	<p>Cross-sectional study. N=520 parturient women (n=260 parturients with FGM and n=260 parturients without FGM)</p>	<p>To compare obstetric outcomes between parturients with genital mutilation and a cohort without genital mutilation.</p>	<p>The comparison between the FGM/C group and the non-FGM/C group showed:</p> <ul style="list-style-type: none"> <li>-Caesarean sections (n=8 - 3.07%) vs (n=5 - 1.92%) p= 0.64</li> <li>-Prolonged second stage of labor [n=28 (10.76%)] vs [n=43 (16.53%)] p = 0.001</li> <li>-Perineal tear [n=147 - "59.32%)] vs [n=113 - "45.6%)], p = 0.001</li> <li>-Hemorrhage: [n=28 (10.76%)] vs [n=24 (9.7%)], p = 0.001.</li> </ul>
<p>"Assessment of complications associated with female genital cutting among postnatal women in Chuko Primary Hospital, Sidama region, Southern Ethiopia"</p> <p>Yosef Y et al. <sup>(26)</sup> 2023</p> <p>SIGN: 2+</p> <p>JB1: 6/8 items</p>	<p>Cross-sectional study. 76.8% women with FGM and 23.2% women without FGM.</p>	<p>To evaluate the complications associated with female genital mutilation among postpartum women.</p>	<p>The comparison between the FGM/C group and the non-FGM/C group showed the following.</p> <ul style="list-style-type: none"> <li>-Prolonged second stage of labor (AOR=1.52; 95% CI: 0.03; 0.82), p = 0.0001.</li> <li>-Episiotomy: [n = 39 (95.9%)] vs [n = 6 (4.1%)] (AOR=7.3; 95% CI: 0.23; 0.23), p = 0.001.</li> </ul>

Title, author, year, risk of bias, and methodological quality	Design and sample	Objectives	Results
<p>"Sequela of female genital mutilation on birth outcomes in Jijiga town, Ethiopian Somali region: a prospective cohort study"</p> <p>Gebremicheal K et al.<sup>(27)</sup> 2018</p> <p>SIGN: 2+</p> <p>JB1: 8/11 items</p>	<p>Prospective cohort study.</p> <p>n=142 parturients with FGM and n=139 parturients without FGM.</p>	<p>The objective was to test the hypothesis that fetuses are a risk factor for various complications during childbirth.</p>	<p>The comparison between the FGM/C group versus non-FGM/C group provided:</p> <p>-Perineal tear [RR = 2.52 (95% CI: 1.26-5.02)] p=0.001</p> <p>-Hemorrhage [RR = 3.14 (I C 95%: 1.27-7.78)] p=0.022</p> <p>-Caesarean section [RR= 1.52 (95% CI: 1.04-2.22)] p=0.008.</p>

## DISCUSSION

This review compiled the most recent evidence on the reproductive health consequences of FGM/C. Women affected by this practice constitute a heterogeneous group due to the different variants of FGM/C, making comparisons between studies difficult. However, a negative impact on various aspects of childbirth and the postpartum period has been documented.

One of the most consistent findings was the increase in the rate of cesarean sections in women with / or c of FGM compared to those who had not undergone it. Multiple studies agree that a higher frequency of cesarean sections was reported in this group <sup>(22,23,27)</sup>, although with variability in statistical significance of the results <sup>(26,25)</sup>. Some studies also analyzed the type of FGM/C and its relationship with the need for a cesarean section, showing a higher risk as the severity of the mutilation increased <sup>(27)</sup>. However, divergent results were found, such as those of Rabiepour and Ahmadi <sup>(24)</sup>, who did not show a higher frequency of cesarean sections in the FGM/C group.

The prolongation of the second stage of labor was another effect identified. All reviewed studies showed a significantly longer time in this phase in women with FGM/C, suggesting a clear relationship between mutilation and difficult labor <sup>(22,23,24)</sup>. Although the time criteria for defining this phase may vary between countries, the results were consistent with indicating an increase in the duration of labor in this group of women. In some cases, this prolongation was associated with a higher obstetric risk <sup>(25,26)</sup>, while in others no statistically significant differences were found <sup>(27)</sup>.

Regarding the need for an episiotomy, the evidence supported a higher incidence of this intervention in women with FGM/C <sup>(22,24,25)</sup>. This finding was associated with a decrease in the elasticity of the perineal tissue in affected women, making it difficult for the baby to pass and increasing the need for obstetric interventions. Similarly, a higher frequency of perineal tears was reported in this group <sup>(22,23,25,27)</sup>, although with variability in statistical significance between the analyzed studies <sup>(26)</sup>.

Postpartum hemorrhage was another indicator evaluated. Some studies have shown increased blood loss in women with FGM/C <sup>(22,27)</sup>, although there were differences in the classification of hemorrhage. While some studies showed lower hemoglobin levels in the FGM/C group after delivery <sup>(23)</sup>, others indicated that there were no significant differences in the amount of blood lost between the groups compared <sup>(24)</sup>. However, some studies reported statistically significant differences in the incidence of postpartum hemorrhage in women with FGM/C <sup>(25,26)</sup>.

## **Limitations and strengths**

One of the main strengths of this review was the inclusion of multiple studies with different methodologies (retrospective and prospective cohorts, cross-sectional studies), which allowed for a broader analysis of the consequences of FGM/C. However, there are important limitations that should be considered. First, the heterogeneity in the classification of FGM/C made it difficult to compare the results between studies. The lack of information on factors such as parity, use of analgesic techniques, or general health status of women limited the interpretation of the findings.

Another relevant aspect was that all the included studies were conducted in African countries, which raises the need to evaluate these effects in other healthcare settings. Furthermore, although some studies addressed the impact of different types of FGM/C on obstetric outcomes <sup>(27,24)</sup>, most did not address the specific reasons that led to the indication of a cesarean section or episiotomy, which could provide key information on the mechanisms involved in these complications.

## **Application and prospects**

The findings of this review reinforce the need to address FGM / C as a public health problem with significant obstetric implications. The evidence collected suggests that women with FGM/C are at increased risk of childbirth complications, underscoring the importance of tailoring obstetric care to their specific needs.

Future research would recommend incorporating variables such as the clinical justification for cesarean sections and episiotomies, as well as a more detailed analysis of the previous health status of pregnant women. Furthermore, it would be relevant to study the impact of FGM/C in different healthcare settings, including countries with more developed healthcare systems, to assess whether medical interventions can mitigate some of the observed complications.

Overall, it was established that FGM / C was a risk factor for various obstetric complications. Although there were differences in the magnitude of the impact depending on the study and the methodology used, the results as a whole reinforce the need for preventive strategies and specialized care for women affected by this practice.

## **CONCLUSION**

The general objective of this review was to describe the reproductive health complications resulting from female genital mutilation (FGM/C). After reviewing and

examining the studies selected for this review, a variety of results were revealed among the different authors.

There is no consensus among the different authors regarding the increased rate of cesarean sections, prolongation of the second stage of labor, postpartum blood loss, episiotomy, and perineal damage in pregnant women with FGM/C. However, a certain trend is observed in which FGM/C increases the probability of these complications.

Therefore, more studies are needed to obtain more robust findings. It would also be important to understand the criteria that inform decisions such as performing cesarean sections or episiotomies. Furthermore, it is crucial to have more information on the health systems of the countries where the women included in the studies were treated, as well as on the consensus documents that guide medical practice in these contexts.

## BIBLIOGRAPHY

1. Auvert B, Taljaard D, Lagarde E, Sobngwi-Tambekou J, Sitta R, Puren A. Randomized, controlled intervention trial of male circumcision for reduction of HIV infection risk: the ANRS 1265 Trial. *PLoS Med.* 2005; 2(11): e298.
2. Hellsten SK. Rationalising circumcision: from tradition to fashion, from public health to individual freedom-critical notes on cultural persistence of the practice of genital mutilation. *J Med Ethics.* 2004; 30(OMS, 1988): 248-53.
3. World Health Organization. Report on the Regional Seminar on Traditional Practices Affecting the Health of Women and Children in Africa, 6-10 April 1987, Addis Ababa, Ethiopia. 1988.
4. Gudeta TA, Regassa TM, Gamtessa LC. Female genital mutilation: prevalence, associated factors and health consequences among reproductive age group women in Keffa Zone, Southwest, Ethiopia. *Reprod Health.* 2022; 19(1): 1-9.
5. León-Larios F, Casado-Mejía RM. Conocimientos, actitudes y experiencias profesionales de las matronas de atención primaria de salud de Sevilla sobre mutilación genital femenina. *Matronas Profesión.* 2014; 15(2): 56-61.
6. World Health Organization. WHO guidelines on the management of health complications from female genital mutilation. 2016. Available from: <https://iris.who.int/bitstream/handle/10665/206437/?sequence=1>
7. Gallego MA, López MI. Mutilación genital femenina: Revisión y aspectos de interés médico legal. *Cuad Med Forense.* 2010; 16(3): 145-51
8. Jiménez-Ruiz I. Enfermería y Cultura: las fronteras del androcentrismo en la Ablación/Mutilación Genital Femenina. Proyecto de investigación (Tesis doctoral). 2015. Universidad de Murcia.
9. Lucas B. Aproximación antropológica a la práctica de la ablación o mutilación genital femenina. *Cuadernos electrónicos de filosofía del derecho.* 2008; 17:4.
10. Nzinga AM, De Andrade Castanheira S, Hermann J, Feipel V, Kipula AJ, Bertuit J. Consequences of Female Genital Mutilation on Women's Sexual Health—Systematic Review and Meta-Analysis. *The Journal of Sexual Medicine.* 2021; 18(4): 750-760.
11. Biglu MH, Farnam A, Abotalebi P, Biglu S, Ghavami M. Effect of female genital mutilation/cutting on sexual functions. *Sexual Reprod Healthc.* 2016; 10:3-8.
12. Ezeoke GG, Adeniran AS, Adesina KT, Fawole AA, Ijaiya MA, Olarinoye AO. Female adolescents and the future of female genital mutilation/cutting: a report from an endemic area. *Afr Health Sci.* 2021; 21(4): 1808-16.

13. Smolak A. The association of female circumcision with HIV status and sexual behavior in Mali: a multilevel analysis. *JAIDS Journal of Acquired Immune Deficiency Syndromes*. 2014; 65(5): 597-602.
14. González-Timoneda A, Ruiz Ros V, González-Timoneda M, Cano Sánchez A. Knowledge, attitudes and practices of primary healthcare professionals to female genital mutilation in Valencia, Spain: are we ready for this challenge? *BMC Health Serv Res*. 2018; 18(1):1-13.
15. Kaplan A, Torán Monserrat P, Bedoya Muriel MH, Bermúdez Anderson K, Moreno Navarro J, Bolívar Ribas B. Las mutilaciones genitales femeninas: reflexiones para una intervención desde la atención primaria. *Atención Primaria*. 2006; 38(2): 122-6.
16. Jiménez-Ruiz I, Martínez PA, Bravo MMP, Roche FP. Aproximación a la Ablación/Mutilación Genital Femenina (A/MGF) desde la Enfermería Transcultural. Una revisión bibliográfica. *Enfermería Global*. 2012; 11(4).
17. Ávila FP, Mas MM, Moreno JB, Giner AR, Ferrandis EF. Mutilación genital femenina. *Educare21*. 2009;54.
18. Ackley BJ, Ladwig GB, Makic MBF, Martinez-Kratz MR, Zanotti M. *Nursing diagnosis handbook, revised reprint with 2021-2023 NANDA-I® updates - e-book*. Elsevier Health Sciences; 2021.
19. Jiménez-Ruiz I, Martínez PA, Carpenito LJ. Proposal for Nursing Diagnosis: Post Female Genital Mutilation Syndrome. *Enfermería Global*. 2017;16(1):51-68.
20. Joanna Briggs Institute. *JB I Manual for Evidence Synthesis*. 2020. Adelaide: Joanna Briggs Institute; 2020.
21. Higgins JPT, Altman DG, Sterne JA. Assessing risk of bias in included studies. In: Higgins JPT, Green S, editors. *Cochrane Handbook for Systematic Reviews of Interventions Version 5.1.0 (updated March 2011)*. The Cochrane Collaboration; 2011. p. 243-96. Available from: [handbook.cochrane.org](http://handbook.cochrane.org).
22. \*Akpak, YK, Yilmaz, I. The impact of female genital mutilation/cutting on obstetric outcomes and its management. *J Mater Fetal Neonatal Med*. 2022; 35(5): 927-932.
23. \*Kulaksiz D, Abdi Nor I, Erin R, Baki Erin K, Toprak T. A prospective cohort study of the relationship of female genital mutilation with birth outcomes in Somalia. *BMC Womens Health*. 2022; 22(1): 202.
24. \*Rabiepour S, Ahmadi Z. The effect of female circumcision on maternal and neonatal outcomes after childbirth: a cohort study. *BMC Pregnancy Childbirth*. 2023;23(1):46.
25. \*Anikwe CC, Ejikeme BN, Obiechina NJ, Okoro-chukwu BC, Obuna JA, Onu FA, et al. Female genital mutilation and obstetric outcome: a cross-sectional comparative study in a tertiary hospital in Abakaliki, South East Nigeria. *Eur J Obstet Gynecol Reprod Biol X*. 2019; 1:100005.
26. \*Yosef Y, Borsamo A, Abeje S. Assessment of complications associated with female genital cutting among postnatal women in Chuko Primary Hospital, Sidama region, Southern Ethiopia. *SAGE Open Medicine*. 2023; 11:20503121221144243.
27. \*Gebremicheal K, Alemseged F, Ewunetu H, Tolossa D, Ma'alin A, Yewondwessen M, et al. Sequela of female genital mutilation on birth outcomes in Jijiga town, Ethiopian Somali region: a prospective cohort study. *BMC Pregnancy Childbirth*. 2018; 18(1): 305.

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