CASE REPORT

Clinical, Sexual and Psychopathological Changes after Clitoral Reconstruction in a Type II Female Genital Mutilation/Cutting: A Case Report

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Abstract

Female genital mutilation/cutting (FGM/C) is a health issue associated with serious negative psychological and health consequences. However, there is little literature on the impact of FGM/C on female sexuality, mental health and genital self-image after clitoral reconstructive surgery. Our aim was to assess sexual function, psychopathology and genital self-image in a Type II FGM/C patient. The patient was assessed prior to FGM/C reconstructive surgery and at a 6-month follow-up. At follow-up, she reported an improvement in sexual function and a clear improvement of the psychopathological state. However, a worsening in genital self-image was also endorsed after the surgery. Our findings uphold that FGM/C reconstructive surgery can lessen psychopathological and sexual distress, although more research is needed in order to increase awareness of the potential benefits of genital reconstruction and to perfect the surgery procedures. These results have repercussions for health practitioners and psychologists alike in terms of developing prevention strategies and treatment protocols for FGM/C women. (Afr J Reprod Health 2019; 23[1]: 154-162).

Keywords: Female genital mutilation/cutting; clitoral reconstruction; psychopathology; female sexual function; case report.

Introduction

Female genital mutilation/cutting (FGM/C) is an ancestral practice with deep social and cultural roots, involving the partial or total removal of external female genitalia, as well as other injuries to female genital organs for non-medical reasons¹. The World Health Organization has agreed upon

an international categorization of FGM divided into four types, depending on the extent of genital tissue removed: type I (clitoridectomy), type II (excision), type III (infibulations) and type IV (other). All four are considered as a human rights violation.

Approximately 30 countries in Africa, the Middle East and Asia carry out this practice, which is usually included as part of initiation rituals for becoming an adult woman and obtaining legitimacy as a new member of the community. However, each community possesses its own defining feature with regards to the practice and they are usually associated with myths linked to sexuality, religion and hygiene.

From a medical perspective, research has shown that FGM/C can cause pain, bleeding, infection, urination problems, fever and even death. Moreover, several negative long-term consequences have been widely described, such as increased risk for urinary tract infections, bacterial vaginosis, deformities and adhesions around the amputated area, scarring and genital pain. These physical impairments could also bring about obstetric complications in adulthood.

From a clinical sexology perspective, FGM/C is associated with female sexual function impairments as measured by the Female Sexual Function Index (FSFI), one of the most used psychometric instruments in clinical research. Reduced sexual sensitivity, sexual activity, enjoyment of sex, frequency of orgasm and persistent psychosexual dysfunction have also been documented in genital circumcised women. Other common sexual dysfunctions found in circumcised women are genito-pelvic pain/penetration disorder and female orgasmic disorder.

Although many studies uphold the negative physical and sexual impact of FGM/C, research focused on the correlates of psychopathology and FGM/C is still in its nascent stages. A higher prevalence of posttraumatic stress disorder and other psychiatric symptoms, such as higher levels of somatization, anxiety, phobias, and affective disorders in circumcised women in comparison with non-circumcised women has been described. Other authors have also cited different profiles of FGM/C women according to employed coping strategies, arguing that this practice does not affect all women equally at a psychopathological level.

In addition to the psychopathological consequences derived directly from this practice, consideration should be given to the interference of the migration process to Western countries in women’s mental health, taking into consideration the reason behind their decision to leave their country of origin. The complexity of the acculturation process and integration to the host society could generate significant emotional distress. Relatedly, receiving countries have increased their interest in women with FGM/C by reaching out to women who suffer from this condition. Coordinated approaches between health professionals are under development in order to deal with FGM/C and to improve clinical outcomes.

Clitoral reconstruction has numerous surgical (addressing functional complaints), sexual (reduction of sexual distress and dysfunction), and sociocultural, gender and anthropologic implications (mainly identity recovery). It is also noteworthy that this surgical technique has been reported to aid in reducing local pain, restore clitoral pleasure and improve vulvar appearance.

Nevertheless, an improved understanding of how this surgery impacts women’s genital self-image and sexual function is needed.

Taking into account the country where the present study was carried, in 2001, the Spanish federal government created a multi-level prevention program to increase awareness of FGM/C, although health professionals in the majority of cases are not cognizant to the presence of FGM/C due to underreporting. Three different types of prevention programs were developed. First, specific "long-term" systematic prevention is developed especially for pediatricians. Second, "opportunistic" prevention consists of the clinician using visits as an opportunity to address complications derived from FGM/C to discuss the
issue, provide relevant information and advice and to investigate the circumstances of the patients’ daughters, if it is the case. Finally, community prevention seeks to inform and alert the community through talks with associations and workshops. With regards to interventions, to date, the hospital receiving the greatest number of patients in Spain seeking genital reconstruction surgery is the one featured in the present study. Therefore, taking into account the current situation both in Spain and in the Western world, empirical studies assessing mental health after genital reconstruction are needed to better understand the implications of genital reconstruction and to propose effective multidisciplinary interventions, especially in the field of education and women’s health. To our knowledge, no empirical studies have jointly explored psychopathology, sexual satisfaction and genital image in women with FGM/C before and after clitoral reconstructive surgery.

Thus, our primary aim was to assess sexual function and distress, psychopathology and genital self-image in a 26-year-old type II FGM/C woman prior to FGM/C reconstructive surgery and at a six-month follow-up.

Our main goal with the present study was to examine the multidisciplinary and international implications of FGM/C. Although our work interweaves three main fields, medicine, psychology and clinical sexology, we consider that our findings may be of interest to other areas, such as those examining FGM/C from an educational or anthropological perspective. Health care providers require greater knowledge of how clitoral reconstruction surgery affects women with FGM/C and how to best manage patients.

Case Report

The present study was carried out jointly at the Department of Obstetrics, Gynecology, and Reproduction and at the Department of Psychiatry, Psychology and Psychosomastics at a private University Hospital. Though it is a private hospital, a separate private foundation financed the economic costs of FGM/C reconstructive surgery.

A 26-year-old woman from Ethiopia came to the Hospital seeking clitoral reconstruction after having undergone Type II FGM/C, according to the WHO classification, at the age of 6 in her native country. Taking this classification into account, the patient presented excision, characterized by the removal of the clitoris and the labia minora. She had been living in Ethiopia from birth until the age of 19, when she moved to Europe, where she is living now with her parents and studying. In Ethiopia, prevalence studies have reported that 74% of women have experienced type I or type II FGM/C. She reported having an adjustment disorder characterized by anxiety symptomatology when she arrived in Europe but endorsed not having had any other psychiatric disorders prior to her arrival.

Taking her sexual history into account, she hadn’t obtained sexual education from her family due to cultural reasons. She once attempted genital self-stimulation two years prior to seeking help but ceased this sexual behavior because of feelings of guilt. Moreover, she was sexually assaulted at the age of 18 and she chose to terminate the subsequent pregnancy via a legal abortion. The rape was her first experience with sexual intercourse. A few years later, she started to maintain sexual intercourse with her boyfriend, though she suffered from pain and bleeding. She reported a complete absence of sexual pleasure during intercourse, as well as reoccurring pain. She reported wanting to receive FGM/C reconstructive surgery to be able to experience sexual pleasure and to improve the appearance of her genitalia and, consequently, reclaim her female identity. However, she reported that she had not informed her relatives about seeking the FGM/C intervention because she was afraid of being rejected. She said she understood that there was a strong cultural contrast between her country of origin and her country of residence, and that there was a high probability that her family would not approve of this decision.
Study Design

During the first baseline phase, initial psychometric, clinical and sociodemographic information was obtained at the Department of Psychiatry, Psychology and Psychosomatics. During the first phase of the initial session, the patient individually completed the questionnaires required for this study. Then, she was assessed in a face-to-face clinical interview by an expert clinical psychologist with experience in the field of FGM/C. Finally, considering the characteristics of the patient’s sexuality, the clinician provided sexual psychoeducation to attempt to deal with remaining myths and false beliefs regarding sexuality. In this case, myths related to sexuality, affectivity and reproduction were addressed, contemplating that her first sexual experience had been traumatic. During the second stage, she received FGM/C surgery at the Department of Obstetrics, Gynecology, and Reproduction with outpatient care visits to follow her progress. During last period of the study, the patient was assessed at a 6-month follow-up visit at the Department of Psychiatry, Psychology and Psychosomatics with the goal of identifying changes in sexual practice, mental health and genital self-image. At this visit, the patient also received guidelines to facilitate her sexual interactions with her partner after the surgical intervention.

Diagnostic Focus and Assessment

Psychopathological status

Symptom check list-90-R\textsuperscript{25}

This 90-item questionnaire featuring a five-point Likert scale format was used to evaluate nine symptom dimensions (somatization, obsession-compulsion, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism) and three global indices (distress, severity and positive symptoms). The Spanish validation has shown adequate internal consistency (0.76 and 0.98)\textsuperscript{26}.

Sexual distress, function and intimacy

Female sexual function index\textsuperscript{27}

The FSFI is a 19-item self-report measure which assesses sexual function in females. It is made up of 6 domains: desire, arousal, lubrication, orgasm, satisfaction and pain. It has been shown to have good psychometric properties and clinical utility\textsuperscript{27}. The Spanish version was validated by Blumel et al.\textsuperscript{28}. Sexual dysfunction was assessed by adding the scores from the different domains of the FSFI.

Female sexual distress scale-revised\textsuperscript{29}

The FSDS-R is a 13-item questionnaire which assesses different components of sexual distress in women over the last 4 weeks. Items on the FSDS-R are scored using a five-point Likert-type scale (never (0), rarely (1), occasionally (2), frequently (3), or always (4)) and higher scores indicate higher levels of sexual distress. The original version has demonstrated adequate reliability (α = 0.87 to α = 0.93) and high test–retest reliability (r = 0.74 to r = 0.86)\textsuperscript{29}.

Genital self-image

Female genital self image scale\textsuperscript{30}

This is a reliable and valid measure to assess female genital self-image. It consists of seven items related with women’s feelings and beliefs about their own genitals, and it uses a 4-point response scale: strongly agree, agree, disagree and strongly disagree. The scale was found to have adequate reliability (α = 0.88). Moreover, the scores in the questionnaire were found to be positively associated to sexual function\textsuperscript{30}.

Other sociodemographic, sexual and clinical variables

Sexuality and psychosocial variables (family and personal psychiatric history and current psychopathological examination) were measured using a semi-structured, face-to-face clinical
interview and through DSM-5 female sexual dysfunction criteria. The DSM-5 recognizes these disorders as female sexual dysfunctions: female sexual interest or arousal disorder (mainly characterized by absent or reduced interest in sexual activity, sexual or erotic thoughts or fantasies and sexual excitement or pleasure during sexual activity or to any internal or external sexual or erotic cues); female orgasmic disorder (characterized by a marked delay in, infrequency or absence of orgasm and/or reduced intensity of orgasmic sensations); and the genitopelvic pain or penetration disorder (mainly difficulties in vaginal penetration or vulvovaginal or pelvic pain during intercourse).

**FGM/C reconstructive surgery**

FGM/C reconstruction consists of recovering the remaining clitoris and placing it externally as close to the vagina as possible. Firstly, the scar tissue is removed from the skin to expose the clitoris. When the residual clitoris is recognized, the clitoris is dissected from bulbo cavernosus muscles to obtain lateral mobility and the suspensory ligament is sectioned. The anchorage of the gland is performed with a figure of 8 Vycril 1 sutures that encroach both muscles, the public periosteum and the ventral base of the clitoris. The skin is closed with interrupted 3/0 stitches. Patients are discharged one day after the surgery and check-up visits are scheduled two weeks, a month and a half, and three months after surgery. During the first month the patient is taught to perform daily care of the wound. Sexual intercourse is allowed three months after surgery and a final evaluation is made at six months.

**Results**

**Clinical outcome**

No complications appeared during surgery and it was performed using standard techniques. The patient did not completely adhere to the postoperative follow-up wound care, completing the procedures on less days than what was recommended. The patient’s inconsistent post-surgery wound care could have partially affected the outcome by slowing the process of genital recovery.

**Psychometric measures**

**Psychopathology**

Table 1 displays the patient’s main psychopathological characteristics before and after surgery. During the baseline phase, before surgery, the patient obtained clinically significant scores in obsession-compulsion, interpersonal sensitivity, depression, anxiety, hostility and psychoticism symptom-dimensions from Symptom Check List-90-R. Six months following the surgery, the patient reported no psychopathology alterations in any of the nine Symptom Check List-90-R primary symptom-dimensions.

**Sexual function, sexual distress and genital self-image**

Sexual distress, function and intimacy outcomes are reported in Table 1. The patient showed a slight improvement in sexual function six months after surgery. Although specific increases in each of the FSFI domains were not found, a global improvement in sexual function was described through the total FSFI score.

A full remission of sexual distress was observed through the FSDS-R questionnaire at the six-month follow-up. Nevertheless, the patient reported altered genital self-image after FGM/C surgery. Finally, referring to DSM-5 female sexual dysfunctions criteria, the patient no longer met criteria for female orgasmic disorder and female sexual interest/arousal disorder at follow-up. No changes were reported in genito-pelvic pain/penetration disorder.

**Discussion**

We aimed to assess sexual function, psychopathology and genital self-image in a 26-
Clitoral reconstruction in FGM/C

Table 1: Main psychometric results in psychopathology, sexuality and genital self-image across the two phases of a patient after clitoral reconstruction

<table>
<thead>
<tr>
<th>Psychological distress</th>
<th>Baseline</th>
<th>Follow-up (6 months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCL-90-R: Somatization</td>
<td>1.06</td>
<td>0.06</td>
</tr>
<tr>
<td>SCL-90-R: Obsessive-Compulsive Sensitivity</td>
<td>3.3</td>
<td>0.2</td>
</tr>
<tr>
<td>SCL-90-R: Interpersonal</td>
<td>2.33</td>
<td>0.11</td>
</tr>
<tr>
<td>SCL-90-R: Depression</td>
<td>2.53</td>
<td>0</td>
</tr>
<tr>
<td>SCL-90-R: Anxiety</td>
<td>2.2</td>
<td>0.3</td>
</tr>
<tr>
<td>SCL-90-R: Hostility</td>
<td>3.33</td>
<td>0</td>
</tr>
<tr>
<td>SCL-90-R: Phobic anxiety</td>
<td>0.85</td>
<td>0</td>
</tr>
<tr>
<td>SCL-90-R: Paranoid ideation</td>
<td>1.5</td>
<td>0</td>
</tr>
<tr>
<td>SCL-90-R: Psychoticism</td>
<td>2.7</td>
<td>0.2</td>
</tr>
<tr>
<td>SCL-90-R: GSI</td>
<td>2.15</td>
<td>0.1</td>
</tr>
<tr>
<td>SCL-90-R: PST</td>
<td>65</td>
<td>5</td>
</tr>
<tr>
<td>SCL-90-R: PSDI</td>
<td>2.98</td>
<td>1.8</td>
</tr>
</tbody>
</table>

Sexuality

| FSFI: Desire                  | 2        | 4.2                  |
| FSFI: Arousal                 | 0        | 0                    |
| FSFI: Lubrication             | 0        | 0                    |
| FSFI: Orgasm                  | 0        | 0                    |
| FSFI: Satisfaction            | 2        | 4                    |
| FSFI: Pain                    | 0        | 3.6                  |
| FSFI: Total Score             | 4        | 12                   |

Genital Image

| FGSIS: Total score           | 12       | 7                    |

Our findings showed that the patient presented relevant psychopathological impairments before the surgery (using the SCL-90-R), which could be related to both the ritual itself and to her migration experience to Europe that took place 7 years ago. The fact that she showed anxious symptomatology when she arrived in the country of destination, as well as the need to conceal the reconstruction operation from her direct family due to fear of possible repercussions, leads us to think that the psychopathology presented before the intervention could be related to these factors of cultural adaptation. However, these symptoms were clearly reduced after the reconstruction. This result dovetails with previous studies, which have also reported psychopathological symptomatology associated to FGM/C11. In this vein, different authors consider that this cultural practice usually is associated with high emotional distress that may lead to post-traumatic stress disorder symptomatology, anxiety, depression, as well as feelings of betrayal and humiliation directed towards family members11,32,33. In addition, a possible explanation for the reduction of the previously endorsed psychopathology presented by the patient could be related to decreased emotional distress stemming from indecision prior to the operation, as well as to the satisfaction of having decided thinking of herself as a woman and her sexual satisfaction despite not obtaining approval from her direct family. However, a clear relationship between FGM/C reconstruction and psychopathological changes has yet to be established.

Moreover, consistent with data obtained in previous studies2, our results point to high levels of sexual impairment (FSFI) and sexual distress (FSDS-R) before clitoral surgery. At the 6-months follow-up, global sexual function improved, and sexual distress was absent. In addition, the patient stopped meeting DSM-5 criteria for female sexual interest/arousal disorder.

Consistent with prior data, no improvement in orgasm function is described after surgery21. Despite this, the patient stopped meeting DSM-5 criteria for Female Orgasmic Disorder after surgery. The clitoris is understood to be crucial for female orgasmic functioning10 and therefore, patients that undergo clitoral reconstruction might need to receive counseling on sexuality to improve their knowledge about this organ and how to stimulate it to gain more pleasure.

Finally, our findings seem to contradict the hypothesis supporting that genital self-image improves after a genital surgery. A study of Goodman et al.34 found that after two years of the plastic surgery the differences between patients and the general population in body image and genital self-image were absent, and that sexual satisfaction markedly improved.
The results of this study showed a worsening in clitoral self-image after surgery. It might be hypothesized that the clinical complications and vulvar inflammation after surgery had an impact in clitoral appearance and pain. Reasons as to why the patient did not report improvements in her genital self-image and pain could be explained from a clinical perspective. First, in some cases, given the severity of the mutilation, it is technically difficult to obtain a notable improvement after clitorial surgery. In addition, the lack of total compliance with the wound care recommendations by the patient could have interfered with recovery, although surgeons do not consider it the main interference factor in clinical recovery.

Moreover, the follow-up was at 6 months after surgery and other studies have observed an improvement after a longer follow-up period. Relatively, genito-pelvic pain/penetration disorder remained after FGM/C surgery and this could also be explained by the lack of a long-term follow-up.

**Limitations**

While this case report has strengths, we should consider the findings with certain caveats in mind. First, the case study design does not allow for the generalization of the results. Second, not including a control subject and not controlling for external variables that might have influenced the results of this study are limitations that should be highlighted. Lastly, this study measured the medium-term effectiveness of FGM/C reconstructive surgery and future studies should determine if these effects are enduring.

**Implications for International Practice**

Depending on the outcome of the intervention, different options should be considered on a practical level when considering women with FGM/C. Regarding the countries of origin of women with FGM/C, both prevention and sex education policies are required to effectively disseminate the health and psychological impact that this practice has on these women. As for Western countries, greater insight into the physical and psychopathological consequences of FGM/C could bring about policies that facilitate the acculturation process of women with FGM/C who immigrate. Changing the perspective that women have regarding FGM/C is not a straightforward process and it involves providing a path towards enabling them to undergo a redefinition of themselves as women who are faithful to their culture of origin and, yet at the same time, able to carry out necessary separations from their past.

In addition, our results could help develop new screening tools for both the educational and health fields.

**Conclusion**

To conclude, our findings support that improvements in psychopathology and sexuality occur after FGM/C reconstruction surgery. A detailed understanding of the biopsychosocial consequences of FGM/C practice will allow for improving prevention policy and treatment efforts. New empirical studies are required to gain a better understanding of reconstructive surgery procedures, and to establish more effective health intervention programs and to address the cultural practices associated with health risks.

**Patient Informed Consent**

The patient was informed about the study and signed informed consent was obtained from her. The Hospital Ethics Committee approved the procedures of this study.

**Conflicts of Interest**

The authors declare no conflict of interest.

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**Contribution of Authors**

GMB, ITS and MJB designed the experiment based on previous results and the clinical experience of PBS, GL and JMF. GMB and ITS conducted the experiment, analyzed the data, and wrote a first draft of the manuscript. GMB further modified the manuscript.

**References**


**Clitorial reconstruction in FGM/C**
