IJMA

International Journal of Medical Arts

Volume 7, Issue 4 (April 2025)

http://ijma.journals.ekb.eg/

P-ISSN: 2636-4174

E-ISSN: 2682-3780

Available online at Journal Website
https://ijma.journals.ekb.eg/
Main Subject [Obstetrics and Gynecology**]**

Original Article

Relation of Female Circumcision to Sexual Dysfunction in Damietta Governorate – Egypt

Amal Ramadan Abdelaziz Elmenawy[1]; Mahmoud Salah Mahmoud [2]; Ahmed Mahmoud Elshorbagy [2]

[1] Department of Obstetrics and Gynecology, Gamasa Central Hospital, Ministry of Health, Dakahlia, Egypt.

[2] Department of Obstetrics and Gynecology, Damietta Faculty of Medicine, Al-Azhar University, Damietta, Egypt.

Article information

Received: 20-08-2024

Accepted: 17-03-2025

DOI: 10.21608/ijma.2025.314187.2023.

*Corresponding author

Email: amalelmenawy1992@gmail.com

Citation: Elmenawy ARA, Mahmoud MS, Elshorbagy AM. Relation of Female Circumcision to Sexual Dysfunction in Damietta Governorate – Egypt. IJMA 2025 Apr; 7 [4]: 5623-5627. doi: 10.21608/ijma.2025.314187.2023.

ABSTRACT

Background: Female circumcision, also known as female genital mutilation, is associated with several complications. However, its effect on sexual function remains a gap in knowledge.

Aim: This study aims to investigate the possible relationship between female circumcision and the development of female sexual dysfunction in Damietta Governorate.

Patients and Methods: This was an observational cross-sectional study conducted on 100 randomly selected, nonpregnant, married women of sexually active age attending outpatient clinics at Al-Azhar University Hospital. All participants were asked to complete the Arabic-validated Female Sexual Function Index [FSFI].

Results: In the current study, 59% of the participants [59 individuals] experienced sexual dysfunction. In the circumcised group, 27 participants [50.94%] experienced sexual dysfunction, whereas in the uncircumcised group, 32 participants [68.09%] were affected, indicating a higher prevalence. However, there was no statistically significant difference between the two groups regarding female sexual dysfunction. Additionally, no significant difference was observed between type 1 and type 2 circumcision in relation to the occurrence of sexual dysfunction. Notably, sexual desire was lower in the uncircumcised group.

Conclusion: Although sexual desire was lower in the uncircumcised group, circumcision did not have a significant effect on overall female sexual function.

Keywords: Circumcision; Sexual Dysfunction; Female Sexual Function Index.

INTRODUCTION

Female circumcision, commonly referred to as female genital mutilation [FGM] or female genital cutting, is a practice involving the removal or alteration of female genitalia. Female genital mutilation encompasses all non-medical treatments that entail the complete or partial removal of the external female genitalia or infliction of harm on the female genital organs [1]. Female genital mutilation is a worldwide issue that primarily affects young girls from infancy to adolescence. Based on data from 30 countries in Africa [specifically the western, eastern, and north-eastern regions] as well as some countries in the Middle East and Asia, it is estimated that over 200 million girls and women currently alive have experienced female genital mutilation. Additionally, it is estimated that more than 3 million girls are at risk of undergoing FGM each year [2].

The health risks encompass acute issues such as hemorrhage, intense pain, damaged bones, potential HIV infection, and shock. Long-term repercussions of this condition include the development of keloid scars, painful sexual intercourse, persistent infections, difficulties in pregnancy and childbirth, as well as psychological issues related to sexual dysfunction, loss of trust in healthcare providers, and depression [3, 4]. Ending the practice of female genital mutilation in Egypt is particularly challenging given the country's recent history. Based on the findings of the Egyptian Family Health Survey [EFHS] 2021, it has been determined that 86 percent of married Egyptian women aged 15 to 49 had experienced Female Genital Mutilation, with 74 percent of them being subjected to the procedure by doctors. While there has been a notable shift in women's perspectives about circumcision, there is a prevalent endorsement for the perpetuation of Female Genital Mutilation in Egypt [2].

Sexuality is a fundamental element of human existence that involves several aspects such as sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy, and reproduction. Typically, women experience sexual activity during adolescence and attain their highest frequency of orgasms in their 30s. Their sexual capacity remains steady until the age of 55, with few data suggesting that aging has an impact on it in later life. The sexual response cycle consists of three primary stages: desire, arousal, and climax. Every stage is linked to distinct physiological alterations. Women frequently have a range of disorders related to the sexual response cycle [5]. This study aimed to detect the possible relation between female circumcision and development of female sexual dysfunction in Damietta governorate.

PATIENTS AND METHODS

This was an observational cross-sectional study performed on 100 randomly selected nonpregnant married women at sexually active age from outpatient clinics of Al-Azhar university hospital. The aim of the study and details of the questionnaire were explained to the women before obtaining their consent. Our study followed the Helsinki declaration principals, and ethical approval was obtained from our university. This study based on a study carried out by Raheem et al,2018. Epi Info statcalc was used to calculate the sample size by considering the following assumptions: - 95% two-sided confidence level, with a power of 80%. & α error of 5% odds ratio calculated= 1.115. The final maximum sample size taken from the Epi- Info output was 93. With consideration of dropout during follow up, the sample size was be increased to 100.

The Inclusion criteria were: 1] In the age of child bearing period. 2] Married with regular marital relationship. 3] Can read and understand Arabic language without any difficulties. 4] Accept to participate in the study.

The Exclusion criteria were: 1] Pregnant lactating women. 2] women with chronic disease like DM or HTN or neurological diseases. 3] women with local genital pathology or operation except circumcision and episiotomy. 4] Women with mental or psychological illness. 5] Women whose husband having sexual dysfunction like premature ejaculation and erectile dysfunction. 6] Medications that affect sexual performance [as antidepressant, and antihypertensive]

Data collection: Self-reported questionnaire written in English and translated in to Arabic was used. To ensure that all gathered information was kept confidential and the participants were anonymous, each questionnaire was handed in an open envelope and after filling it, the subject sealed the envelope and put it in a basket containing other sealed envelopes. All females were subjected to filling out the Arabic validated FSFI, that was developed by **Rosen *et al.*** [6]. It is a 19 item, self-reported measure of sexual dysfunction in women. A copy from it in Arabic and English is mentioned in appendix. The questionnaire covered the following sections First section: Socio-demographic characters as the age, residence, woman and parents' educational level in addition to marital data in the form of age and duration of marriage and number of children. Second section: Mutilation data as the age of mutilation, the person who performs mutilation, the place, causes, complications, and degree of mutilation. Third section: As number of sexual intercourses per week and sexual function assessment by standardized female sexual function index [FSFI] questionnaire. FSFI includes six domains and 19 items to assess female sexual function [two questions for desire, four questions for each arousal, and lubrication, three for each orgasm, satisfaction, and pain]; each question have score ranged between zero and five then to calculate the total score, each item was multiplied by specific factor and follows a computational formula to obtain a full-scale score. The overall score was classified as female sexual dysfunction if it is equal to or below [26.55]. Participants were subjected to examination of the external genitalia to identify the type of FGM/C and to exclude any pelvic pathology. Circumcised females were classified according to the following classification: Type I: Partial or total removal of the clitoral glans [the external and visible part of the clitoris] and/or the prepuce/clitoral hood [the fold of skin surrounding the clitoral glans]. Type II: Partial or total removal of the clitoral glans and the labia minora, with or without removal of the labia majora. Type III: [infibulation]. Narrowing of the vaginal opening with the creation of a covering seal. The seal was formed by cutting and repositioning the labia minora, or labia majora. Type IV: all other harmful procedures to the female genitalia for non-medical purposes, for example pricking, piercing, scraping [7].

Statistical analysis: Data analysis was performed with SPSS statistical software, version 25 [IBM, Chicago, Illinois, USA]. The normality of the data was tested by the Kolmogrov-Smirnov test. Qualitative data were presented as numbers and percentages and were compared by the Chi square test, while quantitative data were presented as mean and standard deviations and were compared by the independent t test. As a result, the p-value were considered significant at the level of <0.05.

ESULTS

The mean age was 29.14 ± 6.12. 43% of the patients reside in urban areas and 57% reside in rural areas .13% of the patients are uneducated ,4% have primary education ,44% have middle education, 6% have secondary education and 33% have a university education. The mean duration of marriage was 8.18 ±5.87. The mean number of children was 1.92 ± 1.14 **[Table 1].** The mean age of participants in the circumcised group was 29.49 ± 6.42 and in uncircumcised group was 28.74 ± 5.81, with no significant differences. In the circumcised group, 19 participants [35.85%] reside in urban areas, compared to 24 participants [51.06%] in

the uncircumcised group and there was no significant association between residence and prevalence of circumcision. The data was categorized into different education levels: uneducated, primary, middle, secondary, and university. In the circumcised group, the highest percentage was among participants with a middle education level [49.06%], while the lowest percentage was among primary educated participants [5.66%]. In the uncircumcised group, the highest percentage was among participants with a university education [38.3%], while the lowest percentage was among primary-educated participants [2.13%]. The mean duration of marriage was 8.6 ± 5.16 and 7.7± 6.6 for the circumcised and uncircumcised groups respectively. The mean number of children was 2.19 for the circumcised group ±1.14 and 1.62 for the uncircumcised group ± of 1.07. The p-value of 0.011 suggests a statistically significant difference in the number of children between the two groups, the circumcised group having a higher average number of children **[Table 2].**

According to type of circumcision, 53% of the subjects are circumcised [53 individuals]. 42% of the circumcised subjects are Type 1 [42 individuals]. 11% of the circumcised subjects are Type 2 [11 individuals]. **Table [3]** demonstrated that 59% of the subjects [59 individuals] experience sexual dysfunction. In the circumcised group, 27 participants [50.94%] experience sexual dysfunction. In uncircumcised group, 32 participants [68.09%] experience sexual dysfunction which was higher.

As regards the demographic data of patients as regard prevalence of sexual dysfunction, the mean age of patients in cases with sexual dysfunction was 28.69 years ± 5.81 and in cases without sexual dysfunction was 29.78 years ± 6.57. In cases with sexual dysfunction, 24 participants [40.68%] reside in urban areas, while 35 participants [59.32%] reside in rural areas, the highest percentage was among participants with a middle education level [45.76%], while the lowest percentage was among patients with middle education [20.34%]. The mean duration of marriage for cases with sexual dysfunction was 8.47 years ±6.36 and for cases without sexual dysfunction was 7.76 years ± 5.13. In cases without sexual dysfunction, 19 participants [46.34%] reside in urban areas, while 22 participants [53.66%] reside in rural areas. the highest percentage was among university-educated participants [46.34%], while the lowest percentage was among uneducated participants [2.44%]. The p-value shows statistically significant differences in education levels between the two groups. Specifically, the uneducated and university-educated participants differ significantly. The mean number of children was 1.97 for cases with sexual dysfunction ±1.07 and 1.85 for cases without sexual dysfunction group ±1.26 [**Table 4]. Table [5]** showed that there was no significant difference between types of circumcision and occurrence of sexual dysfunction. As regards the FSFI evaluation, the mean desire score was 3.92±of 0.98. The mean arousal score was 4.09±1.14. The mean lubrication score was 4.8 ±0.89. The mean orgasm score was 4.45 ±0.96. The mean satisfaction score was 5.01±1.03. Pain: The mean pain score was 3.52±0.75. The mean FSFI score was 26.15±6 **[Table 6].** In the circumcised group, the mean score for desire, arousal, lubrication, orgasm, satisfaction, pain and total FSFI score were 4.12 ± 0.94, 4.16±1.21, 4.95± 0.91, 4.45 ± 0.98, 5.14 ± 0.85, 3.59 ± 0.81 and 27.09±7.33 respectively. The p-value of 0.027 in the desire score suggests a statistically significant difference in desire between the two groups, with the circumcised group reporting a higher level of desire. In the uncircumcised group, the mean score for desire, arousal, lubrication, orgasm, satisfaction, pain and total FSFI score were 3.69±0.98, 4.01±1.07, 4.64 ±0.84, 4.46±0.94, 4.85±1.19, 3.44±0.66, 25.08±3.8 respectively. The p-value of 0.093 suggests a borderline significant difference in the overall FSFI score between the two groups. Only desire was significantly higher in circumcised group **[Table 7].**

Table [1]: Demographic data among all patient in the study.

		Total Subjects [N = 100]
Age		29.14 ± 6.12
Residence	· Urban	43 [43%]
	· Rural	57 [57%]
Education	· Uneducated	13 [13%]
	· Primary	4 [4%]
	· Middle	44 [44%]
	· Secondary	6 [6%]
	· University	33 [33%]
Duration of marriage		8.18 ± 5.87
Number of Children		1.92 ± 1.14

Table [2]: Demographic data of patients as regard prevalence of circumcision.

		Circumcised	Uncircumcised	P. Value
		Cases [N = 53]	Cases [N = 47]	
Age		29.49 ± 6.42	28.74 ± 5.81	0.54602
Residence	· Urban	19 [35.85%]	24 [51.06%]	0.12507
	· Rural	34 [64.15%]	23 [48.94%]	0.12507
Education	· Uneducated	4 [7.55%]	9 [19.15%]	0.08511
	· Primary	3 [5.66%]	1 [2.13%]	0.36824
	· Middle	26 [49.06%]	18 [38.3%]	0.27936
	· Secondary	5 [9.43%]	1 [2.13%]	0.12467
	· University	15 [28.3%]	18 [38.3%]	0.28869
Duration of marriage		8.6 ± 5.16	7.7 ± 6.6	0.4459
Number of Children		2.19 ± 1.14	1.62 ± 1.07	0.0118*

Table [3]: Prevalence of female sexual dysfunction in both groups.

	Circumcised	uncircumcised	All Patients	P.
	Cases [N = 53]	Cases [N = 47]	Cases [N=100]	
Sexual Dysfunction	27 [50.94%]	32 [68.09%]	59 [59%]	0.082

Table [4]: Demographic data of patients as regard prevalence of sexual dysfunction.

		Cases with sexual dysfunction	Cases without sexual dysfunction	P. Value
		[N = 59]	[N = 41]	
	Age	28.69 ± 5.81	29.78 ± 6.57	0.38
Residence	· **Urban**	24 [40.68%]	19 [46.34%]	0.57
	· **Rural**	35 [59.32%]	22 [53.66%]	0.57
Education	· **Uneducated**	12 [20.34%]	1 [2.44%]	0.008*
	· **Primary**	1 [1.69%]	3 [7.32%]	0.15
	· **Middle**	27 [45.76%]	17 [41.46%]	0.67
	· **Secondary**	5 [8.47%]	1 [2.44%]	0.21
	· **University**	14 [23.73%]	19 [46.34%]	0.01*
Duration of marriage		8.47 ± 6.36	7.76 ± 5.13	0.54
Number of Children		1.97 ± 1.07	1.85 ± 1.26	0.63

Table [5]: Relation between type of circumcision and sexual dysfunction.

	Type 1 circumcision	Type 2 Circumcision	P value
	[N =42]	[N =11]	
Cases with sexual dysfunction	22	5	0.68
Cases without sexual dysfunction	20	6	

Table [6]: FSFI evaluation in all patients.

FSFI evaluation	Total Subjects [N = 100]
· **Desire**	3.92 ± 0.98
· **Arousal**	4.09 ± 1.14
· **lubrication**	4.8 ± 0.89
· **Orgasm**	4.45 ± 0.96
· **Satisfaction**	5.01 ± 1.03
· **Pain**	3.52 ± 0.75
· **FSFI Score**	26.15 ± 6

Table [7]: FSFI evaluation in circumcised and uncircumcised patients.

FSFI evaluation	Circumcised	Uncircumcised	P. Value
	Cases [N = 53]	Cases [N = 47]	
· **Desire**	4.12 ± 0.94	3.69 ± 0.98	0.02751*
· **Arousal**	4.16 ± 1.21	4.01 ± 1.07	0.52503
· **lubrication**	4.95 ± 0.91	4.64 ± 0.84	0.08427
· **Orgasm**	4.45 ± 0.98	4.46 ± 0.94	0.93219
· **Satisfaction**	5.14 ± 0.85	4.85 ± 1.19	0.15506
· **Pain**	3.59 ± 0.81	3.44 ± 0.66	0.31586
· **FSFI Total Score**	27.09 ± 7.33	25.08 ± 3.8	0.09392

DISCUSSION

The results of the current work regarding the association between education levels and the act of circumcision is supported by **Raheem *et al.*** [8] who reported that, the educational level in mutilated [n=432] group, 136 [31.5%] with low education and 296 [68.5%] with high education while in unmutilated [n=86] group, 4 [4.7%] with low education and 82 [95.3%] with high education. The same authors also reported that, the mean duration of marriage [years] in Mutilated [n=432] group was 14±9.2 and the mean number of children was 2.9±1.4 while in Not mutilated [n=86] group was 8.3 ± 7.7 and the mean number of children was 1.9±1.1. these results are also comparable to the current work.

According to circumcision data in our results, there was 53% of the subjects were circumcised [53 individuals], 42% of the circumcised subjects were Type 1 in [42 individuals] and 11% of the circumcised subjects were Type 2 in [11 individuals]. In consistence with our results, **Catania *et al.*** [9] giving anatomical descriptions and psychophysiological explanations of female sexual functions. Type I was 20 while Type II was 18 in group A. However, in group B Type 1was11 [18.9%] and Type 2 was 1 [1.76%].

In our study, according to prevalence of sexual dysfunction in both groups circumcised and uncircumcised groups, we found that 59% of the subjects [59 individuals] experience sexual dysfunction. In the circumcised group, 27 participants [50.94%] experience sexual dysfunction. In uncircumcised group, 32 participants [68.09%] experience sexual dysfunction which was higher. In consistent with our result, **Arafa *et al.*** [10], reported that there were no statistically significant associations have been detected between circumcision and any of the studied Arabic version of the female sexual function index domains [p>0.05].

In contrast with our results, **Elnashar *et al.*** [11] performed on randomly selected 264 newly married women, the circumcised group constitutes 75.8% of the women while 24.2% were non-circumcised. It was revealed that 40.5% of circumcised women had dyspareunia, while only 18.8% of uncircumcised women mentioned that, the difference was statistically significant. Loss of libido was the complaint of 28.5% and 15.6% of circumcised and uncircumcised women respectively. the difference was

statistically significant. Regarding wife satisfaction 43% of circumcised women were unsatisfied compared with 10.9% of those un circumcised. This contradictory result may be due to a difference in age group, cultural background, sexual education and the diversity of sources of knowledge available in the current era.

In our study, we found a statistically significant association between the educational level and prevalence of sexual dysfunction in which the sexual dysfunction was more prevalent in uneducated women than the educated women [P < 0.05]. In agreement with our results, **Ibrahim *et al.*** [12] found that, in sexual dysfunction group, Illiterate represents 52 [19.3 %], Primary education represents 109 [40.5 %], secondary education represents 63 [23.4 %] and University education represents 45 [16.7 %]. **Elnashar *et al.*** [11] found that in Women with sexual problems illiterate represents 179 [27.8%], Primary education represents 98 [15.2%], secondary education represents 409 [63.4%] and University education represents 59 [9.1%].

According to relation between type of circumcision and sexual dysfunction there was no significant difference between types of circumcision type 1 or 2 and occurrence of sexual dysfunction. In consistence with our results, **Ismail *et al.*** [13] found that the female sexual dysfunction was found in 83.4% of mutilated cases type1 and in 84.6% of mutilated cases type 2. There was no statistically significant difference between types of circumcision and occurrence of sexual dysfunction.

As we evaluated the FSFI in all patients, which assesses various aspects of female sexual function. We reported that the mean desire score, arousal score, lubrication score, orgasm score, satisfaction score, pain score and FSFI score was 3.92 ± of 0.98, 4.09±1.14, 4.8 ±0.89, 4.45 ±0.96, 5.01±1.03, 3.52 ± 0.75 and 26.15 ± 6 respectively, which was in agreement with **Abdulcadir *et al.*** [7] and **Ibrahim *et al.*** [12].

Regarding FSFI, the results of the current study is supported by **Catania *et al.*** [9] found a statistically significant higher differences between the group of study and the control group in desire, arousal, orgasm and satisfaction. However, no significant differences were observed between the two groups in lubrication and pain.

In contrast with our result, **Abdulcadir *et al.*** [7] found that, women with FGM have a sexual erectile tissue for sexual arousal, orgasm, and pleasure. However, women without FGM reported significantly higher FSFI domains [arousal, lubrication, and pain scores] compared with women with FGM. However, no differences were found for FSFI desire, orgasm, and satisfaction.

This study has several **limitations** that should be acknowledged. Firstly, the relatively small sample size may limit the generalizability of the findings to the broader population of women in Damietta Governorate or Egypt as a whole. A larger sample may provide more statistically robust results. Secondly, the study relies on self-reported data from the Female Sexual Function Index [FSFI], which, while validated, is still subject to potential recall bias and social desirability bias, particularly given the cultural sensitivity of the topic. Additionally, the cross-sectional design prevents the establishment of a causal relationship between female circumcision and sexual dysfunction, as it only captures a snapshot in time rather than changes over time. Another limitation is the lack of consideration of other confounding factors that may influence sexual function, such as psychological well-being, relationship dynamics, socioeconomic status, and medical conditions. Lastly, while different types of circumcision were assessed, the study does not account for variations in how the procedures were performed, which may impact sexual function outcomes differently. Future studies with a larger, more diverse sample and a longitudinal design would be beneficial in providing deeper insights into this complex issue.

Conclusion: Although the desire was lower in uncircumcised group, Circumcision doesn't affect female sexual function significantly.

Financial and non-financial activities and relationships of interest: None

REFERENCES

1. World Health Organization. Female genital mutilation [Internet]. Geneva: World Health Organization; [cited 2024 July 17]. Available from: https://www.who.int/teams/sexual-and-reproductive-health-and-research-[srh]/areas-of-work/female-genital-mutilation
2. United Nations Children's Fund. Female genital mutilation [Internet]. New York: UNICEF; [cited 2024 July 17]. Available from: https://data.unicef.org/topic/child-protection/female-genital-mutilation/
3. Sarayloo K, Latifnejad Roudsari R, Elhadi A. Health Consequences of the Female Genital Mutilation: A Systematic Review. Galen Med J. 2019 Jan 1; 8: e1336. doi: 10.22086/gmj.v8i0.1336.
4. Foldès P, Cuzin B, Andro A. Reconstructive surgery after female genital mutilation: a prospective cohort study. Lancet. 2012 Jul 14;380[9837]:134-41. doi: 10.1016/S0140-6736[12]60400-0.
5. Rao TS, Nagaraj AK. Female sexuality. Indian J Psychiatry. 2015 Jul;57[Suppl 2]: S296-302. doi: 10.4103/0019-5545.161496.
6. Rosen R, Brown C, Heiman J, Leiblum S, Meston C, Shabsigh R, Ferguson D, D'Agostino R Jr. The Female Sexual Function Index [FSFI]: a multidimensional self-report instrument for the assessment of female sexual function. J Sex Marital Ther. 2000 Apr-Jun; 26 [2]: 191-208. doi: 10.1080/009262300278597.
7. Abdulcadir J, Botsikas D, Bolmont M, Bilancioni A, Djema DA, Bianchi Demicheli F, Yaron M, Petignat P. Sexual Anatomy and Function in Women with and Without Genital Mutilation: A Cross-Sectional Study. J Sex Med. 2016 Feb;13[2]:226-37. doi: 10.1016/j.jsxm.2015.12.023.
8. Raheem TA, Eltahalawi SM, Raia NA, Elsary AY, Ibrahem KM. The effect of female genital mutilation on couple sexual function. Int J Community Med Public Health. 2018 Mar;5 [3]: 905-11. doi: 10.18203/2394-6040.ijcmph20180745
9. Catania L, Abdulcadir O, Puppo V, Verde JB, Abdulcadir J, Abdulcadir D. Pleasure and orgasm in women with Female Genital Mutilation/Cutting [FGM/C]. J Sex Med. 2007 Nov;4[6]:1666-78. doi: 10.1111/j.1743-6109.2007.00620.x.
10. Arafa AE, Elbahrawe RS, M. Shawky SM, Mostafa A, Ahmed SS, El-Houfey AA, et al. Risk factors associated with female sexual dysfunction among married women in Upper Egypt; a cross sectional study. Int J Community Med Public Health. 2018 Jan 24;5[2]:449-453. doi: 10.18203/2394-6040.ijcmph20180218.
11. Elnashar A, Abdelhady R. The impact of female genital cutting on health of newly married women. Int J Gynaecol Obstet. 2007 Jun;97[3]:238-44. doi: 10.1016/j.ijgo.2007.03.008.
12. Ibrahim ZM, Ahmed MR, Sayed Ahmed WA. Prevalence and risk factors for female sexual dysfunction among Egyptian women. Arch Gynecol Obstet. 2013 Jun; 287 [6]: 1173-80. doi: 10.1007/s00404-012-2677-8.
13. Ismail SA, Abbas AM, Habib D, Morsy H, Saleh MA, Bahloul M. Effect of female genital mutilation/cutting; types I and II on sexual function: case-controlled study. Reprod Health. 2017 Aug 30; 14[1]: 108. doi: 10.1186/ s12978-017-0371-9.

IJMA

International Journal of Medical Arts

Volume 7, Issue 4 (April 2025)

http://ijma.journals.ekb.eg/

P-ISSN: 2636-4174

E-ISSN: 2682-3780