

# Survey Study of Acute and Long Term Effects of Female Genital Mutilation among Women in Sharkia Governorate

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## Abstract

**Objective:** The aim of this study is to evaluate the acute and long-term effects of female genital mutilation (FGM) among women in Sharkia Governorate. **Method:** This was a cross-sectional descriptive study carried out in Zagazig University Hospital (ZUH) over a two years period from January 2012 to January 2014. The overall sample consisted of 1500 women. An interview was utilized to collect the necessary data. The questionnaires were administered face to face, in Arabic language. Four open and 25 close-ended questions were used to collect socio-demographic data of the sample: women's experience about the circumcision, occurrence of health hazards after circumcision, and sexual effects on married women. Intention of all women (circumcised or not) to circumcise their daughters was also documented. **Results:** This study revealed that the prevalence of FGM in Sharkia Governorate was about 85.5%. The majority of circumcised women were Muslims (94.4%), married (87.9%), housewife (81.4%), illiterate or with low education level (45.5% and 38.5% respectively) and from rural areas (82.2%). The most common types of FGM were type I (49.2%) and type II (50.8%). The most common motive of FGM was the religious cause (46.6%). The majority of circumcised women (59%) denied the occurrence of any acute complication. The reported acute complications in this study were bleeding (19.6%), urine retention (2.3%), infection (6.3%) and difficult walking (12.8%). The majority of circumcised women (86%) denied the occurrence of any problems at labor related to circumcision. The reported problems at labor in this study were narrowing of introitus (8.4%), laceration (0.7%) and bleeding (4.9%). In this study, 74.6% of circumcised women believed that there was no effect of circumcision on their sexual satisfaction and 92.1% of circumcised women believed that there was no effect of circumcision on their husband's sexual satisfaction. Approximately 16% of circumcised women complained of dyspareunia and believed that it was related to circumcision. **Conclusion:** Female circumcision is deeply rooted in our community and laws alone will not eradicate it. Moreover, this

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**approach may drive it underground. Increased media coverage, statements by ministers, religious leaders and non-governmental organizations may lead to increased discussion of the topic at a local level. Spreading the message by means of pictures, song and drama as well as economic development will be more effective.**

## Keywords

**Female Genital Mutilation, Female Circumcision, Sexual Satisfaction**

## 1. Introduction

Female Genital Mutilation (FGM) is defined as all procedures involving partial or total removal of the external genitalia or other injury to genital organs whether for cultural or other non-therapeutic reasons [1].

There are controversies over the use of the term mutilation. The use of word mutilation reinforces the idea that this practice is a violation of the human rights of girls and women and thereby helps to promote national and international advocacy towards its abandonment. However, at the community and individual level the term can be problematic [2] [3].

It is estimated by World Health Organization (WHO) that 130 million women worldwide have undergone genital mutilation and that some two million women undergo some form of genital mutilation annually. FGM is mainly performed in 28 countries in sub-Saharan Africa and in parts of the Middle East and Asia. However, FGM is also found in Europe, Australia, and the USA, to where migrants brought their culture [4].

Hosken reported that the term of female circumcision went back more than 2000 years. Strabo, the Greek geographer quoted by Hosken, reported when he visited Egypt in 25 BC that female circumcision was a custom. Ancient Arabs practiced female circumcision for long time before Islam [5].

FGM has been classified by the WHO into four types. Types I (clitoridectomy), II (excision), and III (infibulation) are ordered according to a growing level of severity, while type IV comprises all other harmful procedures performed on the female genitalia for non-medical purposes (e.g. pricking, piercing, incising, scraping, and cauterization). Type I, known as “Sunna” involves the excision of the prepuce and partial or total clitoridectomy. Type II involves clitoridectomy and partial or total excision of the labia minora. Type III, also known as “Pharaonic” circumcision involves clitoridectomy, excision of the labia minora and labia majora [1].

FGM is accompanied by a high incidence of complications, immediate and late, physical and psychological, minor and serious, and sometimes fatal [6]. In the short-term, FGM/C might lead to shock, hemorrhage, infections, and psychological consequences, while in the long-term, it can cause chronic pain, infections, keloids, fibrosis, primary infertility, an increase in delivery complications, and psychological sequela/trauma [7] [8]. The mechanism by which genital mutilation might cause adverse obstetric outcomes is unclear. It leads to varying amounts of scar tissue. The presence of scar tissue, which is less elastic than perineal tissue, might cause varying degree of obstruction and tears or episiotomy [9]-[11].

The aim of this study is to evaluate the acute and long-term effects of female genital mutilation (FGM) among women in Sharkia Governorate.

## 2. Subjects and Methods

To achieve the proposed objective, a cross-sectional descriptive study was designed. A multicenteric approach was chosen because this practice is closely linked to ethnic identity. This study was carried out in Zagazig University Hospital (ZUH) over a two years period from January 2012 to January 2014. The overall sample consisted of 1500 women. The subjects were collected from Gynecology outpatient and Antenatal clinics. ZUH is a tertiary/referral/teaching hospital for Sharkia Governorate and its environs. It is an 800-bed hospital established in 1974. It is located in Zagazig city, which is the largest city in East Egypt.

An interview was utilized to collect the necessary data. The questionnaires were administered; face to face, in Arabic language, the official language in our country. Four open and 25 close-ended questions were used to collect the data. The data included the followings: 1) socio-demographic data of the sample including age, educational level, occupation, years of marriage, religion and residence; 2) women’s experience about the circumci-

sion including the age at which the operation was done, the real causes of this procedure, person who performed the procedure and the degree of circumcision; and 3) occurrence of health hazards after circumcision such as bleeding, urine retention, difficult walking, infection, keloid, chronic pelvic pain and sexual effects on married women. Intention of all women (circumcised or not) to circumcise their daughters was also documented.

The women were also examined to determine the type of circumcision.

Once collected, the data were computerized via Epidata and analyzed using SPSS Version 19. Absolute numbers and simple percentages were used to describe categorical variables. Chi-square test was used to determine association between categorical variables. A P value of 0.05 or less was considered statistically significant.

The study was approved by Zagazig University Medical Research Council Laboratories Joint Ethics Committee. All participants signed an informed consent. Rigorous confidentiality was maintained.

### 3. Result

This survey included 1500 women. The majority of these women were circumcised (1287; 85.5%). The majority of circumcised women were Muslims (94.4%), married (87.9%), housewife (81.4%), illiterate or with low education level (45.5% and 38.5% respectively) and from rural areas (82.2%). **Table 1** shows the demographic data of women included in this survey.

The most common types of FGM were type I (49.2%) and type II (50.8%). The range of age of circumcision was 8 - 19 years. The most common operators were Dayas (51%), doctors (12.1%), barbers (6.1%) and nurses (3.8%). The most common motive of FGM was the religious cause (46.6%). **Table 2** shows the data related to circumcision in circumcised women.

**Table 1.** Shows the demographic data of the women.

	Circumcised (n: 1287)	Non-circumcised (n: 213)
<b>Age</b>	33.2 ± 6.2	27.9 ± 4.4
<b>Period of marriage</b>	11.6 ± 6	6.3 ± 2.9
<b>Religion</b>		
Muslims	1215 (94.4%)	195 (91.5%)
Non-Muslims	72 (5.6)	18 (8.5%)
<b>Residence</b>		
Urban	231 (17.8%)	183 (85.7%)
Rural	1056 (82.2%)	30 (14.3%)
<b>Marital status</b>		
Married	1131 (87.9%)	174 (81.7%)
Widow	90 (7%)	15 (7%)
Divorced	66 (5.1%)	24 (11.3%)
<b>Educational level</b>		
Illiterate	585 (45.5%)	0 (0%)
Primary school	24 (1.9%)	0 (0%)
Secondary school	471 (36.6%)	39 (18.3%)
university	207 (16%)	174 (81.7%)
<b>Occupation</b>		
Housewife	1047 (81.4%)	90 (42.3%)
Employee	168 (13%)	123 (57.7%)
Worker	72 (5.6%)	0 (0%)

**Table 2.** Shows the data related to circumcision in circumcised women.

Age at circumcision	11.1 ± 1.2
<b>Operator</b>	
Doctor	181 (12.1%)
Nurse	321 (3.8%)
Daya	682 (51%)
Barber	103 (6.1%)
<b>Motives of circumcision</b>	
Religious	699 (46.6%)
Habits	573 (38.2%)
Purity	66 (4.4%)
Extramarital relations	162 (10.8%)
Medical indication	0 (0%)
<b>Type of circumcision</b>	
Type I	633 (49.2%)
Type II	654 (50.8%)
Type III	0 (0%)
Type IV	0 (0%)

The majority of circumcised women (59%) denied the occurrence of any acute complication. The reported acute complications in this study were bleeding (19.6%), urine retention (2.3%), infection (6.3%) and difficult walking (12.8%). The majority of circumcised women (86%) denied the occurrence of any problems at labor related to circumcision. The reported problems at labor in this study were narrowing of introitus (8.4%), laceration (0.7%) and bleeding (4.9%). In this study, 74.6% of circumcised women believed that there is no effect of circumcision on their sexual satisfaction and 92.1% of circumcised women believed that there is no effect of circumcision on their husband's sexual satisfaction. Approximately 16% of circumcised women complained of dyspareunia and believed that it is related to circumcision. **Tables 3-5** show the acute, obstetric and long term gynecological effects of circumcision in circumcised women.

#### 4. Discussion

According to this study, the prevalence of FGM in Sharkia Governorate was about 85.5%. The prevalence of FGM in Upper Egypt was approximately 89% [12]-[14]. Low educational level and cultural believes may be the causes of increased prevalence of FGM in Upper Egypt.

In this study, the percentages of circumcised Muslim and non-circumcised Muslim women were 86.1% and 13.8% respectively while percentage of circumcised non-Muslim and non-circumcised non-Muslim women were 80% and 20% respectively. Shadya and Mohamed showed that the percentages of circumcised Muslim non-circumcised Muslim, circumcised non-Muslim and non-circumcised non-Muslim women were 95.4%, 4.6%, 80.4% and 19.6% respectively [15]. Increased awareness may be the possible explanation of increased prevalence of circumcision in Muslim women in this study than our study as it was carried out in 1987.

The current study showed that the percentage of circumcised women in rural and urban areas were 97.2% and 55.8% respectively. Ibrahim and Hassanin showed nearly a similar result in Sohage [14]. The fact that FGM is more prevalent in rural areas may be explained by cultural believes and low educational level. In this study, the percentages of circumcised illiterate and educated women were 100% and 76.7% respectively. The majority of non-circumcised women (81.7%) were highly educated. Ibrahim and Hassanin showed that the prevalence of FGM was higher among uneducated families living in the same area [14].

**Table 3.** Shows the acute complications and long term effects of circumcision.

<b>Acute complications</b>	
Bleeding	252 (19.6%)
Urine retention	30 (2.3%)
Infection	81 (6.3%)
Difficult walking	165 (12.8%)
No complications	759 (59%)
<b>Problems at labor</b>	
Narrowing of introitus	108 (8.4%)
Lacerations	9 (0.7%)
Bleeding	63 (4.9%)
No problems	1107 (86%)
<b>Effect on marital relations</b>	
No effect on wife	960 (74.6%)
No effect on husband	1185 (92.1%)
Decreased sexual pleasure of wife	327 (25.4%)
Decreased sexual pleasure of husband	102 (7.9%)
Dyspareunia	207 (16%)

**Table 4.** Shows intention of non-circumcised women about female circumcision and their intention to circumcise their daughters.

<b>Attitude of women</b>	
Good procedure	0 (0%)
Bad procedure	190 (89.2%)
Equivocal procedure	23 (10.8%)
<b>Intention to circumcise their daughters</b>	
Prefer circumcision	0 (0%)
Prefer non-circumcision	213 (100%)
Do not have opinion	0 (0%)

**Table 5.** Shows attitude of circumcised women about female circumcision and their intention to circumcise their daughters.

<b>Attitude of women</b>	
Good procedure	1176 (91.4%)
Bad procedure	30 (2.3%)
Equivocal procedure	81 (6.3%)
<b>Intention to circumcise their daughters</b>	
Prefer circumcision	1107 (86%)
Prefer non-circumcision	63 (4.9%)
Do not have opinion	117 (9.1%)

The type of mutilation varies within and between countries. Current estimates indicate that, worldwide, 90% of FGM cases include type I, II and IV. Type III procedures account for the remaining 10%. According to data reported by WHO, prevalence of FGM in Sudan was 89% and types performed were type I (15%), type II (3%), type III (82%). In Somalia, the prevalence of FGM was 100% and type III was the only type performed [16]. According to the types of FGM in this study, the most common types were type I (49.2%) and type II (50.8%). This difference in prevalence may be explained by cultural, environmental factors, beliefs and habits.

The current study showed that the range of age of circumcision was 8 - 19 years. In fact, this age is the critical time for the development of personalities. Performing circumcision during this age may lead to emotional disturbances, feeling of guilt, insecurity and powerlessness. Age of circumcision reported by Ibrahim and Hassanin was 8 - 9 years [14]. This may be explained by tough habits and early age of marriage in Upper Egypt.

As regards to the persons who performed the circumcision, the present study showed that the most common operators were Dayas (51%), doctors (12.1%), barbers (6.1%) and nurses (3.8%). Shadya and Mohamed reported that the operators of circumcision had the following orders: Dayas (50%), nurses (13.1%), barbers (6.1%) and doctors (3.8%) [15].

As regards to motives of circumcision, the current study showed that the most common motive of FGM was the religious cause (46.6%). Afifi and Von showed that the percentages of women circumcised for more than one reason, family pressure, religious cause and decreasing daughters sexual desire were 45.3%, 32%, 13% and 9.7% respectively [17].

In the current study, the majority of circumcised women (59%) denied the occurrence of any acute complication. The reported acute complications in this study were bleeding (19.6%), urine retention (2.3%), infection (6.3%) and difficult walking (12.8%). Shadya and Mohamed showed that the most common complications were difficult walking (50.7%), bleeding (13%), infection (10%) and edema in the introitus (7%). They also reported that 29.3% of circumcised women denied the occurrence of any acute complication [15]. The difference between their study and our study may be explained by the difference in operator, age at which circumcision done and type of circumcision. In our study, type II circumcision was performed more frequently so bleeding was the commonest reported complications.

In this study, the majority of circumcised women (86%) denied the occurrence of any problems at labor related to circumcision. The reported problems at labor in this study were narrowing of introitus (8.4%), laceration (0.7%) and bleeding (4.9%).

Female circumcision may be associated with sexual difficulties. Pain and tenderness may occur in the scar tissue, leading to dyspareunia, even if the vaginal opening is sufficient to allow penetration. In this study, 74.6% of circumcised women believed that there was no effect of circumcision on their sexual satisfaction and 92.1% of circumcised women believed that there was no effect of circumcision on their husband's sexual satisfaction. Approximately 16% of circumcised women complained of dyspareunia and believed that it was related to circumcision.

In a study of over 4000 women attending hospital in Khartoum, Shandall recorded the frequency of complications in obstetric and gynecological patients. The most frequently encountered problem was sexual difficulties, with anorgasmia reported in over 80% of women [8]. Afifi showed that female circumcision reduced the capacity of women to reach the peak of their sexual pleasure (orgasm) and had a definite effect on reducing sexual desire. He reported that 72.3% of circumcised women complained of frigidity and 77.5% of circumcised women did not reach orgasm during coitus and they believed that circumcision is the cause for delayed orgasm [18]. Raheed *et al.*, reported that female circumcision led to delayed sexual arousal in 44% of circumcised women [19]. The difference between these studies may be explained by the fact that some women did not know the meaning of orgasm and the meaning of sexual pleasure differs from woman to woman. Moreover, socioculture and psychological variables may influence the personality and sexual responses of women and men.

In this study, the majority of circumcised women (91%) considered female circumcision was a good procedure. Moreover, the majority of circumcised women (86%) in this study prefer to circumcise their daughters. Although Egypt has passed legislation forbidding FGM, beliefs are deeply rooted in our community and laws alone will not eradicate it. Moreover, this approach may drive it underground. Increased media coverage, statements by ministers, religious leaders and non-governmental organizations has led to increased discussion of the topic at a local level. Since many women in our community have little or no formal education, spreading the message by means of pictures, song and drama will be effective. This when coupled with other forms of development, such as economic development will be more effective.

Child protection advice should be sought urgently from local social services or local police child protection unit if a child is admitted after circumcision.

## References

- [1] World Health Organization (1998) Female Genital Mutilation. An Overview. WHO, Geneva.
- [2] World Health Organization (2007) Maternal Mortality in 2005. Estimates Developed by WHO, UNICEF, UNFPA and The World Bank. WHO, Geneva.
- [3] El-Gibaly, O., Ibrahim, B., Mensch, B.S. and Clark, W.H. (2002) The Decline of Female Circumcision in Egypt: Evidence and Interpretation. *Social Science & Medicine*, **52**, 1013-1028.
- [4] Hassnin, I.M., Salch, R., Bedaiwy, A.A., Peterson, R.S. and Bedaiwy (2008) Prevalence of Female Genital Cutting in Upper Egypt: 6 Years after Enforcement of Prohibition Law. *Reproductive BioMedicine Online*, **16**, 27-31.
- [5] Hosken, F.P. (1993) The Hosken Report. Genital and Sexual Mutilation of Females. *Women International New York News*, 4th Edition, Lexington.
- [6] Lovel, H., Mc Gettigan, C. and Mohamed, Z. (2008) A Systematic Review of Health Complications of Female Genital Mutilation including Sequelae in Childbirth. WHO, Geneva.
- [7] Ina, I. (1979) Female Circumcision Physical and Mental Complication. *WHO Seminar on Traditional Practices Affecting the Health of Women and Children*, Khartoum.
- [8] Shandall, A.A. (1967) Circumcision and Infibulations of Females: A General Consideration of the Problem and a Clinical Study of the Problem in Sudanese Women. *Sudan Medical Journal*, **5**, 178-212.
- [9] Banks, E., Meiri, K.O., Farley, T., Akande, O. and Bathija, H., WHO Study Group on Female Genital Mutilation and Obstetric Outcome (2006) WHO Collaborative Prospective Study in Six African Countries. *Lancet*, **367**, 1835-1841. [http://dx.doi.org/10.1016/S0140-6736\(06\)68805-3](http://dx.doi.org/10.1016/S0140-6736(06)68805-3)
- [10] Al-Hussein, T.K. (2003) Female Genital Cutting: Types, Motives and Perineal Damage in Laboring Egyptian Women. *Medical Principles and Practice*, **12**, 123-128. <http://dx.doi.org/10.1159/000069119>
- [11] De Silva, S. (1989) Obstetric Squeals of Female Circumcision. *The European Journal of Obstetrics & Gynecology and Reproductive Biology*, **32**, 233-240. [http://dx.doi.org/10.1016/0028-2243\(89\)90041-5](http://dx.doi.org/10.1016/0028-2243(89)90041-5)
- [12] Sayed, G., El-Aty, M.A. and Fadel, K. (1996) The Practice of Female Genital Mutilation in Upper Egypt. *International Journal of Gynecology and Obstetrics*, **55**, 285-291. [http://dx.doi.org/10.1016/S0020-7292\(96\)02753-1](http://dx.doi.org/10.1016/S0020-7292(96)02753-1)
- [13] Tag-Eldin, M.A., Gadallah, M.A., Al-Tayep M.N., Abdel-Ary, M., Mansour, E. and Sallem, M. (2008) Prevalence of Female Genital Mutilation among Egyptian Girls. *Bulletin of the World Health Organization*, **386**, 269-274. <http://dx.doi.org/10.2471/BLT.07.042093>
- [14] Ibrahim, M.A. and Hassnin, O. (2013) Impact of the Complete Ban on the Female Genital Cutting on the Attitude of Educated Women from Upper Egypt toward the Practice. *International Journal of Gynecology & Obstetrics*, 275-278.
- [15] Shadya, H. and Mohammed, F. (1987) Assessment of the Knowledge and Attitude of Egyptian Women towards Female Circumcision. *International Journal of Gynecology & Obstetrics*, 70-88.
- [16] Satti, A., Elmusharaf, S., Bedri, H., Idris, T., Hashim, M.S., Suliman, G.I. and Almroth, L. (2006) Prevalence and Determinants of the Practice of Genital Mutilation of Girls in Khartoum, Sudan. *Annals of Tropical Paediatrics*, **26**, 303-310. <http://dx.doi.org/10.1179/146532806X152827>
- [17] Afifi, M. and Von Bothmer, M. (2007) Egyptian Women's Attitudes and Beliefs about Female Genital Cutting and Its Association with Childhood Maltreatment. *Nursing & Health Sciences*, **9**, 270-276. <http://dx.doi.org/10.1111/j.1442-2018.2007.00366.x>
- [18] Afifi, M. (2009) Women's Empowerment and the Intention to Continue the Practice of Female Genital Cutting in Egypt. *Archives of Iranian Medicine*, **12**, 154-160.
- [19] Rasheed, S.M., Abd-Ellah, A.H. and Yousef, F.M. (2011) Female Genital Mutilation in Upper Egypt in the New Millennium. *International Journal of Gynecology & Obstetrics*, **114**, 47-50. <http://dx.doi.org/10.1016/j.ijgo.2011.02.003>

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