

# Studies on Risk Factors Associated With Female Genital Mutilation during Child Delivery in Abia State - Nigeria

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**Abstract:** The aim of this study is to determine risk factors associated with female genital mutilation (FGM) during child delivery in Abia State – Nigeria. Information on the risk factors such as haemorrhage, perineal tear, urinary incontinence, and scar tissue formation were extracted from 840 case files randomly selected by systematic sampling technique from a sampling frame of 4,200 case files of women who were admitted for child delivery in two hospitals, from 2010-2014. Two focus group discussions (FGDs) were conducted to complement the quantitative data extracted from hospital records. Data were analyzed quantitatively and qualitatively using McNemar's Test statistic, Odds Ratio (OR) and Chi-Square statistic in determining association and significance. The study identified four main risk factors associated with the practice of FGM during child birth. These include haemorrhage 45%; perineal tear 40%, urinary incontinence 44% and scar tissue formation 32%. Statistical analysis showed that there was association between FGM and haemorrhage 0.046, perineal tear (0.074); urinary incontinence (0.283) and scar tissue formation (0.164). The FGDs confirmed that FGM was still practiced in this part of the country. The study provided empirical evidence-based data in support of the factors or reasons for continued practice of FGM despite its ban in Nigeria. These included economic, socio-cultural imperative and ignorance. The prevalence of FGM was still high, 57%. Prospect of stopping the practice of FGM in this part of the world is far-fetched.

**Keywords:** Female genital mutilation, associated risk factors, at child delivery, Abia State, Nigeria.

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## I. INTRODUCTION

Female genital mutilation (FGM) is a type of physical female abuse which involves cutting away part or all of external genital organ of a woman whether for cultural or any other therapeutic reason. FGM also known as female genital cutting or female circumcision has been a common practice in African Countries for many decades [1], [2], [3]. It has been speculated to have started in Egypt and spread through the trade routes to 28 African countries including Nigeria [1]. A study in 2005 showed that Somalia had the highest estimated prevalence of 97.9% [1], [2], [3]. The practice has extended to several Western countries due to immigration [4]. According to WHO [5], 100-132 million girls worldwide have been subjected to FGM. In Nigeria, FGM is practiced in almost all cultures with varying degrees, from infancy to adulthood [6]. The prevalence of FGM in Nigeria varies along the six geopolitical Zones. The prevalence is more in the southern part of Nigeria than in the Northern part, with South West and South East Zones recording the highest percentages 56.5% and 51.3% respectively [3], [4]. Younger age group have been found to practice FGM less than the older age group while the practice is more in rural communities than in urban communities. The practice of FGM in Nigeria reduces as the level of education increases, a factor that is influential in the effort to mitigate the practice.

Four types of FGM have been identified by World Health Organization:

Type I, is called *clitodectomy*, is the excision of the prepuce with or without excision of the clitoris. It is the mildest and less health threatening form of female circumcision predominantly practiced in Muslim countries as Sunnah circumcision [7], [8].

Type II, is called *excision*, is the excision of the prepuce and clitoris together with partial or total excision of the labia minora. It is said to be a more radical and harsh form of FGM [5]. It is practiced in some African Countries like Lesotho.

Type III, is called *infibulations*, is the excision of part or all of the external genitalia and stitching or narrowing of the vaginal opening. According to Demographic Health Survey of Nigeria (DHSN), 2003, it involves the closing up of the vulva, which is usually carried out after the age of five years. It is considered as the most severe form of FGM, and the one resulting in the most adverse health hazard [7]. It is characterized by the entire removal of the clitoris and some or all of the Labia Minora. Incisions are also made on the Labia Majora to evolve raw surfaces which are stitched together to cover the urethra and vaginal introitus leaving a small opening for urine and menstrual flow [9]. The infibulated area is deinfibulated during child birth to allow for passage of child and reinfibulated after the child has been delivered.

Type IV, include all forms of harmful acts to the female genitalia for non- medical reasons, such as pricking, piercing, scrapping and cauterization of the female genital area, burning of the clitoris and the surrounding tissue, scrapping of tissue surrounding the vagina orifice or cutting of the Vagina. Other forms include introduction of corrosive substance into the vagina for the purpose of tightening and causing bleeding [5].

Harmful effects of the practice of FGM have been documented by various researchers ranging from failure of the wound to heal to instant death. [1], [9].

Reported reasons for practicing FGM include, fulfillment of cultural and traditional obligations, ignorance and illusory belief. [1], [3], [9].

The problem of FGM is both traumatic and catastrophic, infringing on the health of girl-child and woman rights. Efforts to mitigate the practice through Legislative Acts and human right laws have not yielded the desired rapid result. There is dearth of data on risk factors associated with FGM during child delivery [1]. This study is aimed at identifying risks factors associated with FGM during child delivery in Abia State, Nigeria, so as to provide evidence-based empirical data that could be used in planning for the eradication.

## II. MATERIAL AND METHOD

A modified retrospective (case-control) study design was carried out in Abia State University Teaching Hospital (ABSUTH) Aba, located in an Urban Community and a General Hospital-Nigerian Christian Hospital (NCH) – Onicha Ngwa, located in a rural community all in Abia State, Nigeria. The two hospitals were purposively selected for the study.

A total of 4,200 case files of women admitted for delivery from 2010-2014 in the two hospitals formed the population size. Sample size of 840 was systematically selected using a sampling frame and sampling interval of five. The case files of these 840 selected women were reviewed for risk factors of female genital mutilation (FGM) at delivery.

The most frequent risk factors of FGM identified were haemorrhage, perinea tear, urinary incontinence, and scar tissue formation. The control group were gotten from the same pool of 840 women who were admitted for delivery in the same hospitals but did not undergo FGM while the case group, were those who underwent FGM. Quantitative analysis was done using McNemar's test statistic, and Odds Ratio (OR).

To complement the quantitative data, two focus group discussions (FGDs) were held, each group consisting of eight men and eight women of comparable age and literacy. A question guide was used in guiding the discussions. Analysis was done qualitatively using a broad sheet.

## III. RESULT

**In table 1:** Out of the 840 case files reviewed, 479(57%) underwent female genital mutilation (FGM), while 361(43%) did not. Out of the 479 women that underwent FGM, 378(45%) had haemorrhage at child birth. Statistical analysis showed Odds Ratio (OR) of 50.2; which is indicative that the risk of haemorrhage during childbirth is 50.2 times greater in women who underwent FGM than in women who did not. Furthermore, McNemar's test statistic result of 0.046 and  $\chi^2$  result of 318.7,  $P=0.0005$  showed that there was strong association between FGM and haemorrhage during childbirth.

**Table 2:** Among the 479 women who underwent FGM, 336(40%) had perineal tear during child delivery while 143(17%) had not. In the control, out of the 361(43%) who did not undergo FGM, only 30(4%) had perineal tear during childbirth while 331(39%) had not. Statistical analysis using odds ratio (OR) showed that the risk of perineal tear in women that underwent FGM was 25.9 times greater than those who did not. McNemar's test statistic result of  $\chi^2=0.074$  was indicative of strong association between FGM and perineal tear during child birth.

**Table 3:** Out of the 479 women who underwent FGM, 370(44%) had urinary incontinence during childbirth, while 109(13%) had not. In the control, out of the 361 women who did not undergo FGM, only 117(14%) came down with urinary incontinence during childbirth while a larger number 244(29%) did not. Further statistical analysis showed odds ratio of 6.5, signifying that the risk of urinary incontinence in women who underwent FGM was 6.5 times greater than those who did not. McNemar's test statistic result of 0.283 was indicative of strong association between the practice of FGM and the risk of urinary incontinence during childbirth.

**Table 4:** Shows the practice of FGM and scar tissue formation during childbirth. Out of 479(57%) women that underwent FGM, 269(32%) had scar tissue formation during childbirth while 210(25%) did not. In the control, out of 361(43%) that did not undergo FGM, only 17(2%) came down with scar tissue formation during childbirth, while 344(41%) did not. When this result was subjected to various statistical analyses, the odds ratio showed that the risk of scar tissue formation in women that underwent FGM was 25.9 times greater than those who did not. Furthermore, McNemar's test statistic result of 0.164 and  $\chi^2$  result of 243.02 showed that there was strong association between the practice of FGM and scar tissue formation during childbirth.

**Focus Group Discussions (FGDs):** A question guide was used in directing the focus group discussions. The participants of the focus group were sixteen in number (all opinion leaders) made up of 8 men and 8 women of comparable age and literacy.

**Female Participants:** About 87.5% of the participants agreed that they had undergone female genital mutilation which they called "Female circumcision".

Some of the questions asked and their responses were as follows;

1. Why do you practice female circumcision?

... "is cultural as well as traditional obligation handed to us from generation to generation and can not be easily stopped because it is deeply rooted in our tradition....."

... "it makes me more feminine and more attractive to men and suitors who view my vagina as clean and no longer dirty or unsightly".

... "it makes me socially acceptable, guarantees better marriage prospects and attracts higher dowry payment to my family at marriage".

... "it initiates girls into womanhood, helps to preserve my virginity and abstinence from pre-marital sex",

... "it reduces female libido/desire for sex".

... "removal of clitoris ensures that it does not touch the head or nose of the baby during delivery which is believed would kill the baby if it does.

2. Will you like the practice of FGM to continue?

About 75% of female participants responded yes while only 25% responded no.

**Male Participants:** All the male participants, 100%, agreed to the continuity of the practice of female genital mutilation (FGM). The major reason given by the participants why the practice should continue was .... "it is a way of upholding our cultural and traditional heritage". About 75% of both male and female participants in the FGDs did not know about the health implications of FGM.

#### IV. DISCUSSION

The findings in table 1, that 57% of females in this part of Nigeria practiced FGM is indicative of the continuity of this practice despite the legislative acts and human right laws banning the practice. The reason for its continuity could be as a result of ignorance of the harmful effects of this practice. About 75% of FGDs participants claimed they were not aware

of the harmful effect of FGM, and as such could not stop the practice. These findings are in keeping with the earlier study report that 58% of women of Abua-Odual Local Government Area in Rivers State, Nigeria practiced FGM [1]. The finding of an association between female genital cutting and haemorrhage during childbirth, in this study, is in conformity with a study, which opined that during delivery there is trauma in the already healed mutilated wound, as well as occasional cuts, which could sever major blood vessels and adjacent organs [10]. This phenomenon was explained by the fact that clitoridectomy involves cutting across pressure artery and cutting the Labia minora and majora further damages arteries and veins [11]. As a result, severe bleeding and collapse or sudden death may occur in case of massive haemorrhage. Furthermore, another study stated that repeated defibulation and reinfibulation during childbirth may also cause major blood loss which may lead to long term anaemia [12].

The findings in table 2 that perineal tear was a significant risk associated with FGM is in agreement with earlier research report [1]. It has been stated that during labour and delivery, complications such as ruptured vulva scar, perineal tear, foetal distress could arise due to FGM [13]. In some instances, spontaneous injury or tearing of the perineum can also occur as a result of strong uterine contraction during labour. WHO [14] affirmed that during childbirth, the anterior episiotomy of the perineum is often lacerated.

The findings in table 3 that urinary incontinence was a significant risk associated with the practice of FGM is in keeping with earlier findings [1], [15]. It has been observed that a girl with genital mutilation may take as long as 10-15 minutes to urinate because the urine comes out in drops or may be unable to pass out urine for days due to pain [16]. According to studies, injuries to adjacent tissues such as the urethra, Vagina, Perineum or rectum result from the use of crude tools, poor light, careless techniques or from the struggle of the girl [12]. Such damage may result in incontinence. Similarly, another study emphasized that urinary incontinence may be painful and may result to urinary retention and urinary tract infection [6].

The findings in table 4 that the identified scar tissue formation is a significant risk of FGM is in agreement with the report that keloid formation results from wound healing with hard scar tissues [14].

The findings from the focus group discussions that about 87.5% of the female participants agreed that they had undergone female genital mutilation is in keeping with the findings of a study which observed that 71.3% of women in Ibadan, Nigeria had undergone circumcision and almost half of them had their last female child circumcised [17]. It also corroborated with the reports of [18], [19], [20] that the prevalence of FGM in Africa was still high due to traditional obligations.

## **V. CONCLUSION**

In conclusion, there is an association between female genital mutilation (FGM) and the risk of haemorrhage, perineal tear, urinary incontinence and scar tissue formation during childbirth. The qualitative information from the focus group discussions confirmed that FGM practice was still in vogue in this part of the world. There is high desire for its continuity despite the inherent health hazards associated with it and government legislative acts prohibiting the practice in Nigeria. The identified reasons for continued practice of FGM as reviewed from the focus group discussions included economic reasons as girls that underwent FGM were believed to attract higher dowry during marriage than those that did not. There is also illusory belief that if the uncircumcised clitoris touches the head of the foetus during delivery, the baby will die. Circumcised women command higher respect in society because of the belief that FGM reduces desire for pre-marital sex and promiscuity. Further it is believed that presence of clitoris in a girl is equivalent to penis in boys, therefore for a girl to be initiated into womanhood, the clitoris must be removed to make her feminine. The disadvantage of FGM is that the practice tends to obey the tradition and cultural imperatives of the people while infringing upon the rights and privacy of women and therefore constitutes child abuse. It also violates the child's rights and has plethora of adverse health consequences which often lead to death of the girl-child.

The identified risk factors associated with FGM and reasons adduced for the practice will act as a pivot in the planning and implementation of a comprehensive campaign by the various governments and non-governmental organizations (NGOs), including human rights instruments in proffering a lasting solution that will mitigate the practice where it exists.

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APPENDICES

Table I: Practice of FG and Haemorrhage during Delivery

| Risk Factor         | Practiced FGM |              |               | McNemar's Test Statistic | X <sup>2</sup> Value   | OR Value |
|---------------------|---------------|--------------|---------------|--------------------------|------------------------|----------|
|                     | Yes           | No           | Total         |                          |                        |          |
| Haemorrhage Present | 378<br>(45%)  | 25<br>(3%)   | 403<br>(48%)  | 0.046                    | 426.3<br>1df, P=0.0005 | 50.2     |
| Haemorrhage Absent  | 101<br>(12%)  | 336<br>(40%) | 437<br>(52%)  |                          |                        |          |
| Total               | 479<br>(57%)  | 361<br>(43%) | 840<br>(100%) |                          |                        |          |

Legend: FGM = Female Genital Mutilation

OR = Odds Ratio

X<sup>2</sup> = Chi-square

Table II: Practice of FGM and Perinea Tear during Delivery

| Risk Factor          | Practiced FGM |              |              | McNemar's Test Statistic | X <sup>2</sup> Value   | OR Value |
|----------------------|---------------|--------------|--------------|--------------------------|------------------------|----------|
|                      | Yes           | No           | Total        |                          |                        |          |
| Perinea Tear Present | 336<br>(40%)  | 30<br>(4%)   | 366<br>(44%) | 0.074                    | 318.7<br>1df, P=0.0005 | 25.93    |
| Perinea Tear Absent  | 143<br>(17%)  | 331<br>(39%) | 474<br>(56%) |                          |                        |          |
| Total                | 479           | 361          | 840          |                          |                        |          |

Legend: FGM = Female Genital Mutilation

OR = Odds Ratio

X<sup>2</sup> = Chi-square

Table III: Practice of FGM and Urinary Incontinence during Delivery

| Risk Factor                  | Practiced FGM |              |              | McNemar's Test Statistic | X <sup>2</sup> Value   | OR Value |
|------------------------------|---------------|--------------|--------------|--------------------------|------------------------|----------|
|                              | Yes           | No           | Total        |                          |                        |          |
| Urinary incontinence Present | 370<br>(44%)  | 117<br>(14%) | 487<br>(58%) | 0.283                    | 148.2<br>1df, P=0.0005 | 6.5      |
| Urinary Incontinence Absent  | 109<br>(13%)  | 244<br>(29%) | 353<br>(42%) |                          |                        |          |
| Total                        | 479           | 361          | 840          |                          |                        |          |

Legend: FGM = Female Genital Mutilation

OR = Odds Ratio

X<sup>2</sup> = Chi-square

Table IV: Practice of FGM and Scar Tissue Formation during Delivery

| Risk Factor                   | Practiced FGM |              |              | McNemar's Test Statistic | X <sup>2</sup> Value    | OR Value |
|-------------------------------|---------------|--------------|--------------|--------------------------|-------------------------|----------|
|                               | Yes           | No           | Total        |                          |                         |          |
| Scar Tissue Formation Present | 269<br>(32%)  | 17<br>(2%)   | 286<br>(34%) | 0.164                    | 243.02<br>1df, P=0.0005 | 25.9     |
| Scar Tissue Formation Absent  | 210<br>(25%)  | 344<br>(41%) | 554<br>(66%) |                          |                         |          |
| Total                         | 479           | 361          | 840          |                          |                         |          |

Legend: FGM = Female Genital Mutilation

OR = Odds Ratio

X<sup>2</sup> = Chi-square