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CLINICAL ARTICLE

Female genital mutilation and efforts to achieve Millennium Development Goals 3, 4, and 5 in southeast Nigeria

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ABSTRACT

Objective: To determine the prevalence of female genital mutilation (FGM), the common forms of FGM, reasons for the practice, associated obstetric outcomes, and how these have affected efforts to achieve Millennium Development Goals (MDGs) 3, 4, and 5 in southeast Nigeria. *Methods:* A prospective descriptive study of parturients in southeast Nigeria was conducted from January to December 2012. All primigravid women attending delivery services at 2 health institutions during the study period were recruited, examined, and classified using the 2008 WHO classification for FGM. *Results:* The mean age of the 516 participants was 27.24 ± 4.80 years and most (66.3%) had undergone FGM. Type II FGM was the most common form, accounting for 59.6% of cases. Most FGM procedures were performed in infancy (97.1%) and for cultural reasons (60.8%). Women who had undergone FGM had significantly higher risk for episiotomy, perineal tear, hemorrhage, cesarean delivery, neonatal resuscitation, fresh stillbirth/early neonatal death, and longer hospitalization, with higher risk ratios associated with higher degrees of FGM. *Conclusion:* FGM is still a common practice in southeast Nigeria, where its association with adverse reproductive outcomes militates against efforts to achieve MDGs 3, 4, and 5.

1. Introduction

In Sub-Saharan Africa, hundreds of thousands of women and children develop complications and die from harmful cultural practices and pregnancy-related conditions. This region has also continued to record the worst maternal and perinatal indices in the world. With the target date of 2015 fast approaching, it is obvious that many low-resource countries such as Nigeria—which account for approximately 10% of the world's population—are still not on track to achieve the targets of Millennium Development Goals (MDGs) 3, 4, and 5: to promote gender equality, to reduce child mortality by two-thirds, and to reduce maternal mortality by three-quarters, respectively, by 2015 [1]. These setbacks can be attributed to numerous factors, among which are harmful cultural practices such as female genital mutilation (FGM).

Female genital mutilation remains a pressing issue that has been recognized as a violation of human and child rights. It has been reported that approximately 3 million women and girls are subjected to FGM every year, while between 100 and 140 million have already undergone the procedure—most of whom live in 28 countries in Africa and western Asia [2–4]. There is reliable evidence about the harmful effects of FGM, especially on reproductive outcomes. It is, therefore, important to review its impact on obstetric outcomes in a country like Nigeria in which there is a very high maternal mortality ratio (700–1500 per 100 000 live births) [2,5–7]. This high mortality ratio has also been associated with 20 times more morbidity for every death [7]. WHO has reported that "the lifetime risk of maternal death ranges from 1 in 35 in Ghana to 1 in 12 in Burkina Faso and estimated perinatal mortality rates range from 44 per 1000 births in Sudan to 88 per 1000 births in Nigeria" [8]. This shows that the practice of FGM poses a great risk to women at various stages of their reproductive lives—increasing morbidity and mortality during childbirth, with attendant poor obstetric outcomes for mother and infant, and threatening the MDG objectives of improving the living conditions of people (especially children and women) around the world.

The aim of the present study was to determine the prevalence of FGM in southeast Nigeria and to ascertain the reasons for the practice, the various forms of FGM predominantly practiced, and the effects of the different types of FGM on a range of maternal and neonatal outcomes during and immediately after delivery, in addition to assessing how this has affected efforts to achieve MDGs 3, 4, and 5.

2. Materials and methods

A prospective descriptive study was conducted involving primigravid women managed between January 1 and December 31, 2012, at 2 specialist obstetric centers in Abakaliki, Ebonyi, southeast Nigeria: Federal Medical Center (now Federal Teaching Hospital Abakaliki) and Mile Four Clinic. These centers provide obstetric services to more than 4800

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women annually. The study was initiated after obtaining ethical clearance from the ethical and research committees of both institutions. Written consent was obtained from all participants.

Primigravid women who presented for maternity services at the study centers were recruited, evaluated, and followed-up for the duration of labor, delivery, and hospital stay. Sociodemographic data, obstetric history, reasons for FGM, mode of delivery, and obstetric and neonatal outcomes were recorded. Participants were examined by trained medical doctors (resident doctors of the rank of registrar and above) and experienced midwives to ascertain whether they had undergone FGM. They were then classified using the 2008 WHO classification [9].

Data were collated and analyzed using Epi Info version 7.0 (Centers for Disease Control and Prevention, Atlanta, GA, USA), and conclusions were drawn by means of simple percentages and inferential statistics using risk ratios (RRs), odds ratios (ORs), and 95% confidence intervals (CIs). $P < 0.05$ was considered to be statistically significant.

3. Results

The sociodemographic characteristics of the 516 participants are shown in Table 1. The mean age of the participants was 27.24 ± 4.80 years. The prenatal booking status of participants showed that 483 (93.6%) were booked in the 2 study facilities, 30 (5.8%) were unbooked, and 3 (0.6%) booked elsewhere but delivered at the study centers (Table 1). Mean gestational age at booking was 22 ± 6 weeks, and mean number of prenatal visits was 6 ± 3. In total, 342 (66.3%) participants had undergone FGM, with type II FGM the most common form experienced (59.6% of cases) (Table 2). The main reason reported for FGM was culture/tradition (60.8%), and most women reported having undergone the procedure in infancy (97.1%) (Table 2). The most common complication among women who had undergone FGM was hemorrhage (80.1%) (Table 3). Overall, 364 (70.5%) participants delivered vaginally, while 152 (29.5%) delivered via emergency cesarean (Table 4). Of the women who delivered vaginally, 167 (45.9%) had not undergone FGM, while 197 (54.1%) had (Table 4). Mean birth weight was 3178.88 ± 498.77 g.

Table 5 and Fig. 1 show obstetric and perinatal outcomes and complications associated with FGM. Women who had undergone FGM were at higher risk of episiotomy, with higher RRs associated with higher degrees of FGM ($P = 0.001$) (Table 5). Perineal tears were also more common among participants who had undergone FGM compared with those who had not, and the RR was also higher with higher degrees of FGM (Table 5). Postpartum hemorrhage (PPH; estimated blood loss ≥500 mL or blood loss that was large enough to compromise the hemodynamic status of the parturient) occurred in 48 (13.2%) women who delivered vaginally, and the RR was higher with higher degrees of FGM ($P = 0.02$) (Table 5).

Neonatal resuscitation (for Apgar score <7) was more common in the FGM group, and the RR was higher with higher degrees of FGM ($P = 0.001$) (Table 5). The incidence of fresh stillbirth/early neonatal death was also significantly higher in the FGM group ($P = 0.003$) (Table 5). Mean duration of hospital stay was 5.16 ± 1.02 days in the FGM group, compared with 2.16 ± 1.07 days among women who had not undergone FGM (OR 2.39 [95% CI, 1.05–3.51]; $P = 0.03$).

Table 1
Sociodemographic characteristics of participants (n = 516).

Characteristics	No. (%)
Age, y	
≤20	30 (5.8)
21–30	285 (55.2)
31–40	197 (38.2)
41–50	4 (0.8)
Educational status	
None	19 (3.7)
Primary	97 (18.8)
Secondary	205 (39.7)
Tertiary	195 (37.8)
Booking status	
Booked	483 (93.6)
Unbooked	30 (5.8)
Booked elsewhere	3 (0.6)
Residence	
Urban	360 (69.8)
Rural	156 (30.2)

Table 2
FGM status, type of FGM, and reasons for the procedure.

Variables	No. (%)
FGM status	
FGM	342 (66.3)
No FGM	174 (33.7)
Total	516 (100.0)
Type of FGM	
Type I	96 (28.1)
Type II	204 (59.6)
Type III	42 (12.3)
Total	342 (100.0)
Reasons for performing FGM	
Culture/tradition	208 (60.8)
Unaware of the reasons	84 (24.6)
To prevent promiscuity	37 (10.8)
To improve perinatal outcome	7 (2.0)
Beautification	3 (0.9)
Religious grounds	3 (0.9)
Total	342 (100.0)
Time FGM was performed	
Infancy	332 (97.1)
Puberty	6 (1.7)
Time of marriage	1 (0.3)
During childbirth	1 (0.3)
After childbirth	2 (0.6)
Total	342 (100.0)

Abbreviation: FGM, female genital mutilation.

4. Discussion

The present results indicate that FGM is still a common finding among women of reproductive age in southeast Nigeria, consistent with findings by WHO in 6 African countries [10]. This would explain its significant effect on obstetric and perinatal outcomes. In our locality (and as shown by the present results), FGM is often performed in infancy, before an individual has had any formal education and when they often have no input into whether they should consent to the procedure; furthermore, even the women who were of age were culturally bound to undergo the procedure for the sake of tradition. Other participants underwent FGM at puberty, at the time of marriage, during childbirth, or after childbirth—depending on variations in culture and customs. Recent surveys in some low-resource countries, especially in Sub-Saharan Africa, found that 90% of girls in Egypt who had undergone FGM were between 5 and 14 years of age at the time; 50% of those in Ethiopia, Mali, and Mauritania were under 5 years of age; and 76% of those in Yemen were 2 weeks old or younger [3]. In some communities, women who were about to be married or who were pregnant with/had

Table 3
Immediate and late complications associated with FGM (n = 342).

Complications	No. (%)
Hemorrhage	274 (80.1)
Sepsis	51 (14.9)
Gynatresia	7 (2.0)
Dyspareunia	7 (2.0)
Tetanus	3 (0.9)
Total	342 (100.0)

Abbreviation: FGM, female genital mutilation.