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Beliefs and Prevalence of Female Genital Circumcision among Pregnant Women Attending Ante-natal Clinic in a Mission Hospital in Uyo, Akwa Ibom State, Nigeria

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Authors' contributions

Author AUI designed the study, conducted literature search, wrote the protocol, the manuscript and collected the data, while Author IBO analyzed the data. Both authors read and approved the final manuscript.

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ABSTRACT

Introduction: Female genital cutting (FGC) or circumcision is one of the age-long cultural practices in many African countries including Nigeria.
Objective: The objective of this study was to assess the beliefs of pregnant women attending the ante-natal clinic of a mission hospital in Uyo, about female genital cutting.
Methods: This was a prospective descriptive cross-sectional study conducted between August and October 2015. Using systematic sampling techniques, 364 newly registered pregnant women who enlisted for care during the study period were recruited. Using strict aseptic technique, vaginal examination was done for each respondent to determine the types of female genital cutting based on World Health Organization (WHO) classification.
Results: The mean age of respondents in this study was 28.3±4.3 years. The prevalence of

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female genital cutting among respondents in this study was 22.5%. FGC was more prevalent among respondents who were older (p=0.001); Attained higher level of education (p=0.001); And among those in the low income group (p=0.001). Removal of the labia minora (Type 2a) was the dominant type of FGC among respondents accounting for 64.4%; This was followed by type 1a (removal of the clitoral hood or prepuce) 18.3%; Type 1b (removal of the clitoris with the prepuce) was present in 15.9% respondents while type 3a (removal and apposition of the labia minora) was present in 1.2% of the respondents.
Among the respondents, FGC was believed to reduce sexual desire of the victims (p=0.009; prevents promiscuity (p=.003); While others belief that it improves hygiene (p=0.018).
Conclusion: Findings from this study have shown that the practice of FGC is complex. The increasing prevalence among those who are older might mean that practice of FGC is reducing among the younger generation. Education and empowerment of women are most needed now along with enforcement of laws aimed at eradicating the practice.

Keywords: Female genital cutting; pregnant women; ante natal clinic; mission hospital; Uyo.

1. INTRODUCTION

Every community the world over has specific lifestyle practices that reflect the values and beliefs held by members of such communities for generations. Some of such practices are beneficial or harmless to members, while others may be harmful to specific population groups such as women, children and the elderly [1,2].

Examples of such practices include male –child preferences, early girl child marriages, payment of dowries, widowhood rites, nutritional taboos for pregnant women and children and female genital cutting or circumcision (FGC) among others [1,2].

Female genital cutting or circumcision comprises all procedures that involve partial or total removal of the female external genitals or other injury to the female genital organs for cultural, religious or other non-therapeutic reasons [3].

Female genital cutting or circumcision is one of the age-long cultural practices in many African countries including Nigeria. According to the World Health Organization, Female genital cutting (FGC) can be classified into four types as follows:

> Type 1 – Partial or total removal of the Clitoris and/ or the prepuce (Clitoridectomy). When it is important to distinguish between the major variations of type 1 mutilation, the following subdivisions are documented: Type 1a, removal of the clitoral hood or prepuce only; Type 1b, removal of the Clitoris with the prepuce.
>
> Type 2 - Partial or total removal of the clitoris and the labia minora, with or without excision of the labia majora.When it is important to distinguish between the major variations of Type 2 mutilation, the following subdivisions are documented: Type 2a, removal of the labia minora only; Type 2b, Partial and total removal of the clitoris and the labia minora; Type 2c, partial or total removal of the clitoris, the labia minora and the labia majora.
>
> Type 3 - Narrowing of the vaginal orifice with creation of a covering seal by cutting and appositioning the labia minora and/ or the labia majora, with or without excision of the clitoris (infibulation). When it is important to distinguish between the major variations in type infibulation, the following subdivisions are documented: Type 3a, removal and apposition of the labia minora; Type 3b, removal and apposition of the labia majora.
>
> Type 4 – All other harmful procedures to the female genitalia for non-medical purposes, for example: Pricking, piercing, incising, scraping and cauterization [4].

Female genital cutting is harmful to women's physical and emotional health throughout their lives and has no known health benefits.[5] Common beliefs among adherents in surveys for practicing FGC include social acceptance, religion, hygiene, preservation of virginity, marriageability and enhancement of male sexual pleasures [6]. Other beliefs include enhanced fertility. This is thought to occur when the tips of the clitoris is wrapped in a piece of paper after cutting and given to the parents of the victim to take home and put in a mouse's hole. If it is

eaten by mouse, it means the girl will bear many children because the mouse itself bears many children. FGC is said to be useful in promoting bonding between couples. This is possible when the cut clitoris is dried and preserved for use in the preparation of a special meal that is usually eaten only by the unsuspecting groom and the bride on the day of their traditional wedding.

Although described as a rite of passage between childhood and adulthood, the practice of FGC on girls who are fifteen years or younger and on those who are as young as five years greatly trivializes such argument [7]. Female genital cutting (FGC) may place women at higher risk of problems during pregnancy and childbirth especially among those who underwent the more extensive FGC procedure [8]. Women who had type 3 FGC (infibulation) may try to make child delivery easier by eating less during pregnancy in order to reduce baby's size.

Those who have developed vesicovaginal (VVF) or rectovaginal (RVF) fistulae can have difficulty in producing clear urine samples as part of prenatal care for assessing pregnancy related problems such as diabetes mellitus and pre-eclampsia. Crucial evaluation during labour may be impeded and labour may be prolonged or obstructed. Third degree tears, anal-sphincters damage and emergency operative deliveries are more common among infibulated women [8,9].

Female genital cutting or mutilation has been carried out on more than 200 million women in about 27 countries in Africa including Nigeria [10].

In Nigeria, the prevalence of female genital cutting varies among different population groups that have been studied; But the range is in the order of zero percent in places like Kogi State, North Central Nigeria to one hundred percent in such places like Kebbi state, North-West Nigeria [11]. In Nigeria, the 2008 National Demographic and Health Survey (NDHS) reported a national prevalence of 30% and zonal prevalence of 53.4% in the south-west and 34.2% in the south-south geo-political zones of Nigeria respectively [12]. Some workers have reported an FGC prevalence of 65% in Akwa Ibom State, South-South Nigeria [13]. Despite its obvious complications, this harmful practice has continued unabated, despite the fact that Nigeria is a signatory to the Maputo protocol that sought to outlaw female genital cutting [14].

Because of the persistence of the practice in spite of the well documented harm associated with FGC, this study was designed to assess the beliefs and prevalence of FGC among pregnant women attending the antenatal clinic of St. Luke's Hospital, a secondary health institution in Akwa Ibom state.

It is hoped that findings from this study will assist health care providers to further appreciate the scope of FGC and guide policy makers to develop strategies to reduce or enforce laws designed to stop FGC in the State and Nigeria in general.

2. SUBJECTS, MATERIALS AND METHODS

This study was carried out in the ante-natal clinic of St. Luke's Hospital, Anua, in Uyo Local Government Area of Akwa Ibom State. St. Luke's Hospital is a foremost missionary hospital established in 1937 and run by the Medical Missionary of Mary, a medical evangelism arm of the Catholic Church in Uyo, Akwa Ibom State, Nigeria.

It had an initial capacity of twelve beds but presently has three hundred and sixty beds. It was the first hospital that was approved for the training of Nurses in the whole of the then South Eastern state of Nigeria in the 1970s. The hospital was also approved for the training of pre-registration medical graduates, and presently trains nurses and midwives to fill the manpower needs of Akwa Ibom and Nigeria as a whole.

At present, the hospital is managed by the Catholic Church in collaboration with Akwa Ibom state Government and offer maternity, surgical, medical and emergency services to members of the public to complement the services offered by other health institutions in the State.

Ante-natal clinics are held in the hospital on Mondays, Wednesdays and Fridays while Thursdays are reserved for registration of new clients.

2.1 Subjects

A total of 364 newly registered pregnant women who attended the ante-natal clinic between August and October, 2015 took part in the study.

Sample size for this study was calculated using the formula: $n = z^2pg/d^2$, [15] where 'n' is the

desired sample size, 'z' represents standard normal deviation set at 95% confidence level which corresponds to 1.96. 'p' is the reported prevalence of female genital cutting in Akwa Ibom State of Nigeria, [13] 'd' is the precision which at 95% confidence interval is 5%.

The calculated sample size was 350. About eight hundred and thirty nine (839) newly registered pregnant women were expected to enlist for care during the study period based on records available for the previous three months of May to July 2015.

Eight hundred and thirty-nine respondents were sampled during the study period. They were recruited using a systematic sampling method with a sampling interval of two.

Numbers ranging from one to two were assigned to the first two respondents who met the inclusion criteria. The first respondent was chosen by simple balloting, which was done by randomly picking one of the numbers from a basket containing the assigned numbers. Subsequently every second respondent was recruited for the study. Where, however, such a respondent did not consent to take part in the study, such a respondent was dropped, then the next respondent that met the inclusion criteria was recruited. Inclusion criteria included all newly registered pregnant women who consented to take part in the study. Exclusion criteria included all critically ill pregnant women as well as those who refused to take part in the study.

Ethical approval for this study was obtained from St. Luke's hospital health research and ethical committee as well as the ethical and research department of Akwa Ibom state Ministry of Health.

2.2 Methods

This was a prospective descriptive cross-sectional study conducted between August and October, 2015. Three hundred and sixty-four (364) newly registered pregnant women who enlisted for care during the study period were recruited into the study.

A structured and pre-tested interviewer-administered questionnaire was used to obtain information about socio-demographic profiles of the respondents. Respondents level of income was determined using the Nigerian national Minimum wage Act passed by the Nigeria Parliament [16]. The Act stipulates a maximum basic monthly salary of sixty thousand naira only for low income earners between salary grade levels 01 and 07, middle level income earners range from salary grade levels 08 and 15 with a maximum basic monthly salary of one hundred and sixty-five thousand naira only, while high level income earners range from salary grade levels 16 to 17 with a maximum basic monthly income of two hundred and ninety-five thousand naira only. At present about three hundred naira exchange for one American dollar.

The questionnaire also collected information about respondents' beliefs about female genital cutting (FGC) which was elicited by interviewing those who were circumcised.

The vagina of each respondent was examined by the lead researcher using sterile technique to determine if the respondent was circumcised and to characterize the extent of the procedure in order to determine the type of FGC.

2.3 Data Analysis

Statistical analysis was done using the statistical package for social sciences (SPSS) version 18.0. Distribution and cross tabulation was generated; chi-square was used to compare proportions. The p-value of 0.05 was used to determine the level of statistical significance.

3. RESULTS

Three hundred and sixty-four pregnant women took part in this study. The average age of the respondents was 28.3±4.3. Table 1 shows the socio-demographic characteristics of respondents.

The prevalence of female genital cutting among respondents in this study was 22.5%. Prevalence increased with increasing age of the respondents and this was statistically significant when compared with those without circumcision or cutting ($p = 0.001$).

Female genital cutting was more prevalent in respondents with high level of educational attainment and this was statistically significant when compared with those without circumcision ($p=0.001$). Female genital circumcision or cutting was more prevalent among respondents in the low income group compared to those in the other income groups ($p = 0.001$).

Fig. 1 shows the types of female genital cutting among circumcised respondents in this study.

Type 2a (removal of the labia minora only) was more prevalent among respondents accounting for 64.4%. This was followed by type 1a (removal of the clitoral hood or prepuce only 18.3%; and type 1b (removal of the clitoris with the prepuce) which was present among 15.9% respondents. Type 3a (removal and apposition of the labia minora) accounted for 1.2% of the subtypes seen in the respondents.

Table 2 shows the beliefs held by respondents about female genital cutting.

Some respondents belief that female genital cutting reduces sexual desire of the victims ($p = 0.009$). Other respondents belief that female genital cutting (FGC) prevents promiscuity ($p = 0.003$); While some belief that it improves hygiene among the victims ($p = 0.018$).

4. DISCUSSION

The prevalence of female genital cutting (FGC) among respondents in this study was 22.5%. This figure is lower than 30.0% reported by NDHS workers as well as 48.0% reported by other workers in South-West Nigeria but higher than 16.0% reported in North Central Nigeria as well as 3% reported in North-West Nigeria. Another study from South-East Nigeria reported FGC prevalence of 49.6% [13,17,18,19].

The reason for the differences in the prevalence of FGC among different workers might be due to the study design and the population studied. While some studies are community-based, others like the present study is hospital-based. The low prevalence may also suggest a declining trend in the practice of FGC.

In spite of the above, FGC is a common practice in various parts of Nigeria because of beliefs ranging from tradition to aesthetic [20].

Among respondents in this study, FGC was seen to increase with increasing age and to decrease with decreasing age. The mean age of respondents in this study was 28.3±4.3 years which is comparable with that of another study which reported the mean age of respondents to be 28±5.4 years. This is also comparable with the mean age of 29.2±5.0 years reported by another study in South-West Nigeria [21,22,23].

This age group represents the peak of child bearing years among women. This means that health care professionals must be prepared to deal with the sad but avoidable complications arising from this FGC among women of child-bearing age [23].

Respondents with higher level of educational attainment had increased prevalence of FGC. This is in agreement with the finding of another study which also reported increased prevalence of FGC among the highly educated respondents [24]. This finding is baffling as low education and poverty usually present together.

The reason may however be due to other factors such as parents' unexpressed convictions about FGC since better educated women are expected to have parents with higher levels of education who should be better informed about FGC. Further study is hereby recommended.

Female genital cutting (FGC) was more prevalent among respondents in the low income group in this study. The low socio-economic circumstances of the respondents' parents might be responsible for this trend.

Findings from this study reveal that removal of the Labia minora only (type 2a) was the dominant type of FGC among respondents. This type of FGC was seen in 64.4% of respondents. This is slightly higher than 62.3% reported by another study which also showed that type 2a was the most dominant variant. [13,24].

The reason for the dominance of this type of FGC among respondents is likely due to reasons such as fewer complications that might occur in the victims that were exposed to this type of FGC both in the short or long term or to unknown beliefs held by practitioners.

Respondents in this study held diverse beliefs about FGC. These beliefs included decline in the sexual desires of the victims, preservation of tradition, prevention of sexual promiscuity, improvement in hygiene of those exposed to FGC as well as male preference for circumcised women since sex is thought to be more pleasurable with circumcised women.

This is in agreement with the report by other studies [2,23,24,25]. These beliefs underlie the fact that FGC is deeply entrenched in the culture of the people, as such efforts at eradicating it might not meet with one hundred percent

success. The belief that FGC can reduce sexual desire and thus prevent sexual promiscuity among those who were circumcised is not in agreement with established medical or sociological facts as circumcised women who feel overpowered can seek to assert their womanhood through sex exploits [26].

Table 1. Socio-demographic Characteristics of respondents with or without female genital (circumcision) cutting

Variable	Subject		p-value
Age in years	**With Circumcision (n=82[22.5%])**	**Without Circumcision (n=282[74.5%])**	
15-24	11 [3.1]	113 [31.0]	0.001*
25-34	14 [3.8]	75 [20.6]	
35-44	27 [7.4]	70 [19.2]	
45 and above	30 [8.2]	24 [6.6]	
Place of residence			
Urban	48 [13.2]	174 [47.8]	0.698
Rural	34 [9.3]	108 [29.7]	
Highest level of education			
No education	6 [1.6]	69 [19.0]	0.001*
Primary	12 [3.3]	98 [26.9]	
Secondary	17 [4.7]	61 [16.8]	
Higher Education	47 [12.9]	78 [21.4]	
Level of income			
Low Level	39 [10.7]	69 [19.0]	0.001*
Middle Level	24 [6.6]	84[23.1]	
Higher Level	19 [5.2]	124 [35.4]	
Marital status			
Singe	7 [1.9]	27 [7.4]	0.056
Married	61 [16.8]	182 [50.0]	
Co-habiting	8 [2.2]	61 [16.8]	
Divorced/Separated	6 [1.6]	12 [3.3]	
Ethnic group			
Ibibio	48 [13.2]	184 [50.3]	0.054
Annang	12 [3.3]	59 [16.2]	
Yoruba	6 [1.6}]	12 [3.3]	
Others	16 [4.4]	27 [7.4]	

**Statistically significant*

Table 2. Beliefs about female genital cutting by respondents

Variable	Subject		P-Value
Beliefs About Female genital cutting	**With circumcision** (n=82[22.5%])	**Without circumcision** (n=282[74.5%])	
Reduces Sexual desires	10[2.7]	51[14.0]	0.009*
Preserves Virginity	8[2.2]	23[6.3]	0.242
Preserves Tradition	24[6.6]	7 [1.9]	0.113
Should Be Stopped	5[1.4]	29 [8.0]	0.060
Prevents Promiscuity	5 [1.4]	50 [13.7]	0.003*
Improves Hygiene	6 [1.6]	39 [10.7]	0.018*
Increases Women's Sexual Pleasure	6 [1.6]	27 [7.4]	0.095
Improves Marriage prospects	6 [1.6]	11 [3.0]	0.762
Can Lead to Difficult Delivery	7 [1.9]	25 [6.7]	0.165
Increases Men's Sexual Pleasure	5 [1.4]	20 [5.5]	0.206

**Statistically significant*

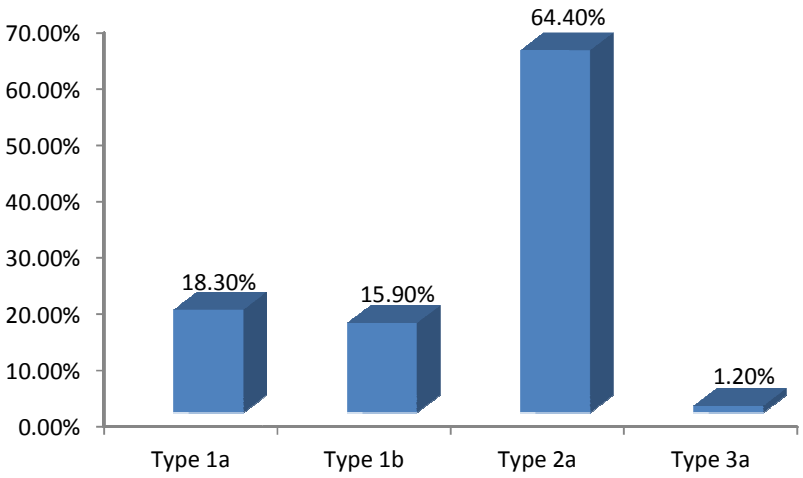

Fig. 1. Types of female genital (circumcision) cutting among respondents

Key: Type 1a = Removal of the clitoral hood or prepuce only; Type 1b = Removal of the clitoris with prepuce; Type 2a = Removal of the labia minora only; Type 3a = Removal and apposition of the labia minora

5. CONCLUSION

In conclusion, findings from this study have shown that the practice of FGC is complex, the prevalence, severity and the beliefs about it are many.

The commonly held beliefs for persistence of the practice are tradition, prevention of sexual promiscuity as well as improvement in hygiene of the victims.

FGC is a clear violation of the fundamental rights of women. Efforts to eradicate it must be stepped up through health education by the mass media and at ante-natal, post natal and family planning clinics.

Such education should include information that clearly stresses the harmful effects of the practice. Misconception, taboos as well as false beliefs associated with FGC must be unequivocally dispelled. Women must be adequately empowered through education and economically as well to defend their rights whenever attempts are made to violate them.

CONSENT

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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