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Predictors of Female Genital Mutilation or Cutting Among Daughters of Women in Guinea, West Africa

Bright Opoku Ahinkorah, MPhil;¹ Edward Kwabena Ameyaw, MPhil;¹ Abdul-Aziz Seidu, MPhil;² Sanni Yaya, PhD, MSc^{3,4}

¹School of Public Health, Faculty of Health, University of Technology Sydney, Sydney, Australia; ²Department of Population and Health, University of Cape Coast, Cape Coast, Ghana; ³School of International Development and Global Studies, University of Ottawa, Ottawa, Canada; ⁴The George Institute for Global Health, Imperial College London, London, United Kingdom

✉ Corresponding author email: sanni.yaya@uOttawa.ca

ABSTRACT

Background and Objective: In some African countries like Guinea, female genital mutilation/cutting (FGM/C) has been considered as an essential social norm in ensuring girls' and women's virginity by reducing their sexual desires. This study aimed at examining the factors associated with FGM/C among daughters of women aged 15-49 in Guinea.

Methods: Using the 2018 Guinea Demographic and Health Survey, we analyzed data on 10,721 women of reproductive age (15-49 years) who had at least one daughter. A two-level multi-level logistic regression analysis was fitted and the random and fixed effects together with their corresponding 95% credible intervals (95% CrIs) were presented.

Results: Women of all age categories had higher odds of having circumcised daughters with the substantially highest odds among those aged 35-39 (aOR=26.10, CrI=11.22-53.94) compared to those aged 15-19. FGM/C was higher among daughters of circumcised mothers (aOR=5.50, CrI=3.11-9.72), compared to those who were not circumcised. Compared to Muslims, women who were either animists or had no religion were more likely to circumcise their daughters (aOR=2.13, CrI=1.12-4.05). Conversely, women with secondary/higher education, whose partners had secondary/higher education, Christians, women of richest wealth index and those who lived in the Faranah and N'zerekore regions were less likely to circumcise their daughters.

Conclusion and Implications for Translation: The current study revealed that individual and contextual factors are associated with FGM/C among daughters of women aged 15-49 in Guinea. The findings imply that eliminating FGM/C in Guinea requires multifaceted interventions such as advocacy and educational strategies like focus group discussions, peer teaching, mentor-mentee programs in regions noted with the FGM/C practice. This will help achieve the Sustainable Development Goal 5.3 which focuses on eliminating all harmful practices, such as child, early and forced marriage and female genital mutilation by 2030.

Key words: • Female Genital Mutilation/Cutting • Reproductive Health • Women's Rights • Girls • Women's Health; Forced Marriage • SDF • Sustainable Development Goals • FGM • Guinea • Demographic and Health Surveys • Africa

I. Introduction

1.1. Background of the Study

Female genital mutilation/cutting (FGM/C) is a worldwide problem affecting Africa and the Middle East.¹ It is a common traditional practice which involves a partial or total removal of female's external genital organ for non-medical reasons.² This practice transpire in different communities with varied reasons which involves a complex mix of socio-cultural, psychosexual, hygienic and religious beliefs.³ According to UNICEF ² more than two-hundred (200) million girls and women alive today have undergone some form of FGM/C in thirty (30) countries across Africa and the Middle East and in addition, thirty (30) million girls are at risk in the next decade.

Studies have identified four types of FGM/C: type 1, partial or total removal of the clitoris and/or the prepuce; type 2, partial or total removal of the clitoris and the labia minora, with or without excision of the labia majora. Type 3 involves narrowing of the vaginal opening through the creation of a covering seal; and type 4, includes all other harmful procedures to the female genitalia for non-medical purpose such as piercing, pricking and scraping.^{4,5}

FGM/C is associated with numerous complications as a result of limited surgical competencies of most FGM/C practitioners (e.g. traditional birth attendants), non-utilization of anesthetic agents and nonexistence of antiseptic techniques.⁶ These complications include severe pain (usually in the absence of anesthetic agents), acute urinary retention, vaginal lacerations at coitus and hemorrhage inter alia.⁷⁻⁹ In the long term, FGM/C may lead to poor quality of life, death or both.¹⁰

In some African countries like Guinea, FGM/C has been considered as an important social norm that is essential in ensuring girls' and women's virginity by reducing their sexual desires.⁹ The prevalence rate of the practice varies among countries. With a prevalence of 96%, Guinea is the country with the highest prevalence of FGM/C in girls and women aged 15-49 in Africa.¹¹

Previous studies on FGM/C in Africa ⁸ and in particular countries such as Benin, ¹² Burkina Faso, ¹³ Cote D' Ivoire, ⁴ Ethiopia^{5,14} and Nigeria¹⁵ have

identified factors such as place of residence (urban and rural settlement), education and household wealth to be associated with FGM/C. Despite the high prevalence of FGM/C in Guinea, there is no evidence to explain the high prevalence of FGM/C in the country.

1.2. Objectives of the Study

The objective of the study was to examine the factors associated with FGM/C among daughters of women aged 15-49 in Guinea.

1.3. Specific Hypothesis

This study is guided by the hypothesis that individual and contextual level factors are associated with FGM/C among daughters of women aged 15-49 in Guinea.

2. Methods

2.1. Study Variables

Data from the women's file of the 2018 Guinea Demographic and Health Survey (GDHS) was used in this study. GDHS is part of a number of surveys obtained from the MEASURE DHS Program and contains information on a number of population and health issues including FGM/C. Data of 10,721 women of reproductive age (15-49 years) who had at least one daughter aged 0-14 were considered for the analysis. In selecting all eligible women for interviews from households, the GDHS utilized a multi-stage, stratified sampling design. Detailed information about the methodology employed in the survey is in the final report.¹⁶

The dependent variable in this study was "FGM/C among daughters of women aged 15-49." To derive this variable, respondents who had daughters were asked how many of their daughter(s) had their genital area "nicked with nothing removed," "something removed," or "sewn shut." The response ranged from 'no daughter' to '1, 2, 3, 4, 5, 6, 7 daughters.' To provide a binary outcome, women who said none of their daughters went through FGM/C were coded as 'No=0' and those who had at least one daughter circumcised were coded as 'Yes=1.'

Ten explanatory variables, consisting of seven individual level and three contextual level factors

were considered in this study. The individual level variables were age (15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49 years), maternal education (no education, primary and secondary or higher), partner's education (no education, primary and secondary or higher), religion (Islam, Christianity, others-animist/no religion), employment status (employed or unemployed), FGM/C status (yes or no) and wealth index (poorest, poorer, middle, richer, richest). The wealth index is a composite measure of a household's cumulative living standard and is calculated by employing Principal Component Analysis (PCS) using easy-to-collect data on a household's ownership of selected assets, such as televisions and bicycles; materials used for housing construction; and types of water access and sanitation facilities. It is then divided into quintiles (1-poorest, 2-poorer, 3-middle, 4-richer and 5-richest).¹⁷ The contextual factors were sex of family head (male or female), place of residence (urban or rural), and region of residence (Boke, Conakry, Faranah, Kankan, Kindia, Labe, Mamou, N'zerekore). The selection of these variables was based on their associations with FGM/C in previous studies.¹⁸⁻²²

2.2. Statistical Analysis

Stata version 14.2 for Windows (StataCorp. 2015. Stata Statistical Software: Release 14. College Station, TX: StataCorp LP) was used in analyzing the data using a two-step analytical approach. First, the distribution of FGM/C among daughters of women aged 15-49 by the individual and contextual level factors were presented in frequencies and percentages. Statistical significance of the association between each of the factors and FGM/C among daughters of women aged 15-49 was assessed using chi-square test of independence [χ^2] at a p-value of 0.05 (Table 1). A two-level multivariable multilevel logistic regression models to examine the effect of individual and contextual factors on FGM/C of girls followed this. The two-level models focused on women (level 1) and contextual factors (level 2). In terms of modelling, four models, comprising an empty model (model 0), model 1, model 2, and model 3 were fitted. Model 0 showed the variance in the outcome variable attributed to the contextual level factors without the explanatory variables. Model 1 contained only the individual-level factors

while Model 2 had only the contextual level factors. Model 3 was the full model that contained all the individual and contextual level factors.

For all models, the fixed effects (measures of association) together with their corresponding 95% credible intervals (95% CrIs) as opposed to 95% confidence intervals (95% CI) were presented. The use of CrIs is based on the use of the Bayesian statistical inference, where probability distributions for association measures are derived (ORs) and allows for summarizing with 95% credible intervals (95% CrI) instead of 95% confidence intervals (95% CI). The choice of credible intervals is supported by the possibility of the parameter taking a value in the specified range.²³ Mean odds ratio (MOR) was used to measure the possible contextual effects in the modelling.²⁴ The proportion of the variance in FGM/C in girls which is explained by the contextual factors was assessed using Variance Partition Coefficient (VPC) (Table 2).

To check for correlation among the explanatory variables, a test for multicollinearity was carried out using the variance inflation factor (VIF) and the results showed no evidence of high collinearity (Mean VIF=1.35, Maximum VIF=2.20, and Minimum VIF=1.03). Sample weight (v005/1,000,000) and SVY command were used to correct for over and under-sampling and the complex survey design and generalizability of the findings respectively. The MLwinN software version 3.05 was used for the analysis.²⁵

2.3. Ethical Approval

For this study, ethical clearance was not demanded since pre-existing publicly available DHS dataset was used. Inner City Fund International as well as an Institutional Review Boards (IRB) of Guinea approved all the DHS surveys in line with the U.S. Department of Health and Human Services regulations for the protection of human subjects. The data for this study can be accessed here: <https://bit.ly/3bFHOVp>

3. Results

3.1. Socio-demographic Characteristics

As shown in Table 1, most of the women whose daughters were circumcised were aged 35-39

Table 1: Socio-demographic characteristics of women and circumcision of girls (n=10,721)

Variable	Weighted sample n (%)	Daughter circumcised	X ² ; p
		Yes (95% CI)	
Individual level factors			
Age (%)			243.2; <0.001
15-19	2,555 (23.8)	0.8 (0.5-1.3)	
20-24	1,733 (16.2)	8.6 (6.8-10.8)	
25-29	1,884 (17.6)	25.2 (22.8-27.7)	
30-34	1,423 (13.3)	42.6 (39.7-45.6)	
35-39	1,294 (12.1)	48.4 (44.9-51.9)	
40-44	933 (8.7)	47.4 (43.9-50.9)	
45-49	898 (8.4)	40.5 (37.0-44.1)	
Wealth index (%)			29.0; <0.001
Poorest	2,014 (18.8)	31.6 (28.7-34.7)	
Poorer	2,102 (19.6)	27.9 (25.7-30.3)	
Middle	2,024 (18.9)	28.7 (26.1-31.5)	
Richer	2,139 (20.0)	23.5 (21.5-25.7)	
Richest	2,442 (22.8)	15.3 (13.5-17.3)	
Maternal education (%)			227.6; <0.001
No education	7,636 (68.7)	31.5 (30.1-33.0)	
Primary	1,242 (11.6)	12.9 (11.0-15.1)	
Secondary+	2,112 (19.7)	9.4 (8.2-10.8)	
Partner's education (%)			46.0; <0.001
No education	5,550 (72.9)	36.7 (35.1-38.3)	
Primary	522 (6.9)	31.2 (27.0-35.8)	
Secondary+	1,545 (20.3)	22.4 (20.0-24.9)	
Religion (%)			34.1; <0.001
Islam	9,232 (86.1)	27.3 (26.0-28.6)	
Christianity	1,321 (12.3)	9.6 (7.1-13.0)	
Others (animist, no religion)	168 (1.6)	22.6 (14.4-33.6)	
Employment status (%)			38.9; <0.001
Unemployed	3,644 (34.0)	20.5 (18.8-22.3)	
Employed	7,077 (66.0)	27.4 (26.0-28.8)	
Respondent Circumcised (%)			93.5; <0.001
No	455 (4.3)	2.8 (1.5-5.2)	
Yes	10,266 (95.8)	26.0 (24.8-27.2)	
Contextual level			
Sex of family head (%)			38.9; <0.01
Male	8,861 (82.6)	26.3 (25.1-27.6)	
Female	1,861 (17.4)	18.7 (16.8-20.8)	
Residence(%)			99.2; <0.001
Urban	4,054 (37.8)	17.3 (15.9-18.9)	
Rural	6,667 (62.2)	29.7 (28.1-31.3)	
Region(%)			34.4; <0.001
Boke	1,084 (10.1)	31.5 (27.9-35.2)	
Conakry	1,900 (17.7)	15.1 (13.0-17.3)	
Faranah	999 (9.3)	22.8 (19.5-26.5)	
Kankan	1,404 (13.1)	33.6 (30.4-37.0)	
Kindia	1,542 (14.4)	29.1 (27.5-32.8)	
Labe	1,039 (9.7)	36.0 (33.1-39.0)	
Mamou	942 (8.8)	33.3 (29.8-36.9)	
N'zerekore	1,810 (16.9)	12.0 (9.5-15.1)	

Source: 2018 Guinea Demographic and Health Survey

Table 2: Multivariable multilevel logistic regression models on individual and contextual factors associated with circumcision of girls in Guinea

	Model 0	Model 1	Model 2	Model 3
	aOR (95% CrI)	aOR (95% CrI)	aOR (95% CrI)	aOR (95% CrI)
Fixed-effect				
Individual level factors				
Age				
15-19		1.00 (Reference)		1.00 (Reference)
20-24		5.85*** (3.43-10.00)		5.90*** (3.46-10.05)
25-29		18.54*** (11.07-31.05)		19.07*** (11.41-31.88)
30-34		39.22*** (23.38-65.78)		40.48*** (24.17-67.80)
35-39		46.82*** (27.88-78.61)		49.36*** (29.43-82.78)
40-44		43.57*** (25.82-73.53)		44.98*** (26.69-75.80)
45-49		32.82*** (19.42-55.46)		34.07*** (20.18-57.51)
Wealth index				
Poorest		1.00 (Reference)		1.00 (Reference)
Poorer		0.88 (0.75-1.03)		0.86 (0.73-1.01)
Middle		0.89 (0.76-1.06)		0.87 (0.74-1.03)
Richer		0.83* (0.69-0.99)		0.85 (0.68-1.05)
Richest		0.63*** (0.51-0.79)		0.67** (0.50-0.98)
Maternal education				
No education		1.00 (Reference)		1.00 (Reference)
Primary		0.82 (0.66-1.01)		0.82 (0.66-1.01)
Secondary+		0.79* (0.63-0.99)		0.78* (0.62-0.97)
Partner's education				
No education		1.00 (Reference)		1.00 (Reference)
Primary		0.96 (0.77-1.20)		0.95 (0.76-1.19)
Secondary+		0.83* (0.70-0.99)		0.82* (0.69-0.97)
Religion				
Islam		1.00 (Reference)		1.00 (Reference)
Christianity		0.28*** (0.21-0.37)		0.57** (0.41-0.78)
Others (animist, no religion)		0.77 (0.42-1.43)		2.13* (1.12-4.05)
Employment status				
Unemployed		1.00 (Reference)		1.00 (Reference)
Employed		0.96 (0.85-1.08)		0.98 (0.86-1.10)
Circumcised				
No		1.00 (Reference)		1.00 (Reference)
Yes		5.37*** (3.07-9.39)		5.50*** (3.11-9.72)
Sex of family head				
Male			1.00 (Reference)	1.00 (Reference)
Female			0.76*** (0.67-0.87)	0.90 (0.75-1.07)

(Contd....)

Table 2: (Continued)

	Model 0	Model 1	Model 2	Model 3
	aOR (95% CrI)	aOR (95% CrI)	aOR (95% CrI)	aOR (95% CrI)
Residence				
Urban			1.00 (Reference)	1.00 (Reference)
Rural			1.76*** (1.53-2.03)	1.10 (0.88-1.37)
Region				
Boke			1.00 (Reference)	1.00 (Reference)
Conakry			0.65*** (0.51-0.83)	0.91 (0.67-1.233)
Faranah			0.64*** (0.52-0.79)	0.69** (0.54-0.89)
Kankan			1.04 (0.85-1.28)	1.40** (1.09-1.79)
Kindia			1.02 (0.84-1.25)	1.03 (0.81-1.31)
Labe			1.18 (0.96-1.46)	1.13 (0.88-1.46)
Mamou			1.08 (0.88-1.33)	1.13 (0.88-1.45)
N'zerekore			0.27*** (0.21-0.34)	0.34*** (0.25-0.47)
Random-effect				
Contextual level				
Variance (95% CrI)	0.34 (0.26-0.41)	0.22 (0.15-0.29)	0.10 (0.06-0.14)	0.14 (0.08-0.20)
VPC % (95% CrI)	40.3 (29.8-51.7)	29.0 (19.9-39.6)	26.2 (17.6-36.7)	22.2 (14.3-31.6)
MOR (95% CrI)	1.74 (1.63-1.85)	1.56 (1.45-1.67)	1.35 (1.26-1.43)	1.43 (1.31-1.53)
Explained variation (%)	Reference	35.1	70.6	58.7
Sample Size				
Contextual level	401	401	401	401
Individual level	10,721	7617	10,721	7617

Source: 2018 Guinea Demographic and Health Survey. aOR=adjusted odds ratio, CrI=credible interval, MOR=median odds ratio, VPC=variance partition coefficient

(48.4%, CI=44.9-51.9), in the poorest wealth index (31.6%, CI=28.7-34.7), had no formal education (31.5%, CI=30.1-33.0), had partners with no formal education (36.7%, CI=35.1-38.3), were Muslims (27.3%, CI=26.0-28.6) and were employed (27.4%, CI=26.0-28.8). Majority of the women whose daughters were circumcised had undergone circumcision themselves (26.0%, CI=24.8-27.2), lived in male-headed households (26.3%, CI=25.1-27.6), lived in rural areas (29.7%, CI=28.1-31.3) and were from the Labe region (36.0%, CI=33.1-39.0). All the socio-demographic characteristics had significant relationship with circumcision of girls at 95% CI.

3.2. Individual and Contextual Factors Associated with FGM/C of Girls in Guinea

Table 2 shows results of the multivariable multilevel logistic regression models of the study. The full model contains all the individual and contextual

level factors and circumcision of girls. In terms of the individual level factors, compared to women aged 15-19, women of all age categories had higher odds of having circumcised daughters with the substantially highest odds among those aged 35-39 (aOR=26.10, CrI=11.22-53.94). We observed high likelihood of FGM/C among daughters of circumcised mothers (aOR=5.50, CrI=3.11-9.72), compared to those who were not circumcised. Compared to Muslims, women who were either animists or had no religion were more likely to circumcise their daughters (aOR=2.13, CrI=1.12-4.05). Conversely, with reference to women with no formal education and those whose partners had no formal education, those with secondary/higher education (aOR=0.78, CrI=0.62-0.97) and whose partners had secondary/higher education (aOR=0.82, CrI=0.69-0.97) were less likely to have circumcised daughters. Women who were Christians were less likely to have

circumcised daughters (aOR=0.57, CrI=0.41-0.78) compared to Muslims. The likelihood of FGM/C among daughters was lower in women of richest wealth index compared to those of poorest wealth index (aOR=0.67, CrI=0.50-0.98). With the contextual factors, the likelihood of FGM/C among daughters was lower among women who lived in the Faranah region (aOR=0.69, CrI=0.54-0.89) and N'zerekore region (aOR=0.34, CrI=0.25-0.47) but higher among those who lived in the Kankan region (aOR=1.40, CrI=1.09-1.79) compared to women who lived in the Boke region.

All the models showed significant variation in FGM/C of girls across the contextual levels especially in the final model. As shown in model 0, there were substantial disparities in the odds of FGM/C in girls across the contextual level ($\sigma^2=0.34$, 95% CrI 0.26 to 0.41). Results from the median odds ratio (MOR) also supported evidence of contextual factors shaping FGM/C in girls. From the full model (model 3), there is evidence that when a woman relocates to a different context, median increase will be 1.43% (1.31-1.53).

4. Discussion

This study aimed at examining the factors associated with FGM/C among daughters of women aged 15-49 in Guinea. We identified that the odds of FGM/C increases among girls whose mothers were aged 20-49, those whose mothers had undergone FGM/C, mothers who were either Muslims, animists or had no religion and those higher who lived in the Kankan region. Conversely, women with secondary/higher education, those whose partners had secondary/higher education, Christians, women of the richest wealth index and those who lived in the Faranah and N'zerekore regions were less likely to have circumcised daughters.

The likelihood of FGM/C in girls increased with age. This finding is consistent with the findings of previous studies that have also identified a positive relationship between women's age and the likelihood of having their daughters circumcised.^{22,26,27} Perhaps, older women are more deep-rooted with the conventional FGM/C practice as a result of their affiliation with socio-cultural norms and

practices that exist in their societies which signify group identity and culture. Such women are more likely to strongly uphold such practices even if it has negative implications on their health and that of their families.²⁸ Older women may be involved in FGM/C due to their connection with their elderly parents and grandparents through the passage of information related to their culture and the need to hold them in high esteem through vicarious experiences over time irrespective of how others perceive those practices (e.g., FGM/C). For instance, for societies with high prevalence, FGM/C is considered as a rite of passage to womanhood with strong ancestral and sociocultural roots.²⁹ Although modernization can change the attitude towards FGM/C and possibly reduce the practice, such attitudinal change may be less prevalent in older women unless education and sensitization are given with high intensity.

Consistent with previous studies,^{22,26,27,30} the odds of daughters undergoing FGM/C decreased with increasing mother's and partner's level of education. Therefore, high level of education of both women and their partners was found to be a protective factor for FGM/C in daughters. By inference, women with no formal education have higher odds of possibly circumcising their daughters in the future compared to those with varying degrees of education. Knowledge obtained through formal education has been considered as a tool for changing one's attitude towards a lot of negative socio-cultural practices including FGM/C.³¹ This is because women and partners with high knowledge level are more likely to be empowered to turn down any societal pressure to circumcise their daughters.³⁰ Hence, knowledge obtained through schooling may serve as a powerful tool that can help women and their partners to criticize constructively with more openness against the practice and offer a better awareness of its adverse effects.

Women who had undergone FGM/C were more likely to have their daughter circumcised. This implies that such women may have obtained some benefits from the practice and would want their daughters to also go through the same experience. However, some studies have reported that women who have gone through FGM/C are more likely to condemn

the practice because of its negative effects on their health.³² Whether or not women who have undergone FGM/C in this study are more likely to have their daughters circumcised because of its benefits or their deep-rooted affiliation with socio-cultural norms calls for a further investigation.

Religion was found as a significant predictor of FGM among women and girls in Guinea. Specifically, women who were Muslims, animists and those who had no religion were more likely to have circumcised daughters. This findings is consistent with the findings of several studies.³³⁻³⁵ The association between religion and FGM/C among daughters should be understood within specific socio-cultural interpretations around religious identity.³³ Thus, the religious identity of Muslim, animist and women with no religion may influence the practice of FGM/C in specific socio-cultural context. There is therefore the need for a holistic understanding of how religion relates to FGM/C and this calls for collective rather than individual religious identity for the discontinuation of the practice. The role of religion in FGM/C can also be explained in the context of geographical location and socio-economic status. In terms of geographical location, the high prevalence of FGM/C among daughters in the Kankan region can be explained in terms of religion, where majority of the people who live in the Kankan region are predominantly Muslims.³⁶ Socio-economically, poverty has been found to be high in the Kankan region³⁷ and this also explains why we found in this study that women of the poorest wealth index are more likely to have their daughters circumcised.

4.1. Strengths and Limitations of the Study

The strength of the study lies in filling the gap in literature on the predictors of FGM/C in girls in a high FGM/C prevalence country in Africa. The use of a nationally representative data also buttresses the reliability and generalizability of the findings to the whole country. Despite the strengths, some limitations inherent in the current study cannot be underestimated. First, the DHS data used followed a cross-sectional design, meaning that inferences drawn from the findings to represent causality should be interpreted with caution. Secondly, the use

of secondary data which contains already existing variables limits the ability of the study to consider essential socio-cultural factors that can influence FGM/C in girls. Finally, collecting self-reported data on a sensitive issue like FGM/C may be influenced by social desirability bias which can lead to over-reporting or under-reporting.

5. Conclusion and Implications for Translation

The current study revealed that maternal age, maternal level of education, partner's level of education, wealth index, religion, and a mother's circumcision status and region were associated with FGM/C in girls. Specifically, daughters of women of reproductive age were more likely to go through FGM/C when their mothers are in older age categories, have no formal education, have partners with no formal education, had history of FGM/C, were of the poorest wealth index, animists or had no religion and lived in the Kankan region. The findings imply that eliminating FGM/C in Guinea requires multifaceted interventions such as advocacy and educational strategies like focus group discussions, peer teaching, mentor-mentee programs at both national and community levels in regions noted with the FGM/C practice. There is also the need for government and non-governmental organizations to institute interventions such as entrepreneurial training, media advocacy and community dialogue to help deal with FGM/C in the country. This will help achieve the Sustainable Development Goal 5.3 which focuses on eliminating all harmful practices, such as child, early and forced marriage and female genital mutilation by 2030. Future studies should examine the attitude of women of Guinea towards FGM/C and the factors that influence their attitudes.

Compliance with Ethical Standards

Conflicts of Interests: The authors declare no competing interest. **Financial Disclosure:** Nothing to declare. **Funding/Support:** There was no funding for this study. **Ethics Approval:** Ethics approval was not required for this study since the data is secondary and is available in the public domain. More details regarding DHS data and ethical standards are available at: <http://goo.gl/ny8T6X>. **Acknowledgments:** The authors thank

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Key Messages

- ▶ Female genital mutilation/cutting is associated with numerous complications such as severe pain, acute urinary retention, vaginal lacerations at coitus and hemorrhage inter alia.
- ▶ In Guinea, daughters of women with no formal education are more likely to go through female genital mutilation/cutting.
- ▶ The likelihood of female genital mutilation/cutting is high among girls whose mothers had also experienced female genital mutilation/cutting.

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