Female Genital Mutilation in Ghana: Prevalence and Socioeconomic Predictors

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Background. Each year, not less than three million women are circumcised, and more hundred million females have already been circumcised. In many African societies, the practice of female genital mutilation (FGM) is a serious cultural practice. Aim: This current study is aimed at identifying the socioeconomic predictors of female genital mutilation in Ghana. Methods. The design adopted for this study was a descriptive cross-sectional survey relying on data from the Ghana Multiple Indicator Cluster Survey (MICS) 2017/18. SPSS software was used for data analysis. Chi-square and binary logistic regression were used for associations.

Results. Overall FGM prevalence, this study recorded was 11.7%. The region with the highest (50.5%) prevalence was the Upper West Region. Area of residence predicted rural (AOR = 2.30, 95%CI = 1.75 – 3.00) Upper West/western Region (AOR = 1.84, 95%CI = 1.23 – 2.75). In terms of ethnicity, the tribes that predicted FGM when compared with the Akan tribe were Guan (AOR = 8.91, 95%CI = 3.53 – 22.51), Gruma (AOR = 6.45, 95%CI = 2.91 – 14.31), Mole-Dagbani (AOR = 38.10, 95%CI = 21.20 – 68.49), Grusi (AOR = 45.30, 95%CI = 24.47 – 83.49), Mande (AOR = 68.58, 95%CI = 30.85 – 152.42), and other tribes (AOR = 29.33, 95%CI = 16.11 – 53.39). Women in the richest/poorest wealth index quintile (AOR = 1.80, 95%CI = 1.19 – 2.72).

Conclusion. The study prevalence of FGM is still high in the northern part of Ghana, and the predicted factors were residence region, ethnicity, educational level, and economic status.

1. Introduction

Female genital mutilation (FGM) is defined by the World Health Organization (WHO) as the practice of cutting parts or complete removal of female external genitalia for culture medicine. It was important to classify FGM as it is significant for clinical practice, management, recording, and reporting of prevalence. FGM is categorized into four and further subdivided into subtypes [1].

In many African societies, the practice of female genital mutilation (FGM) is a serious cultural practice. FGM practice can be traced in 28 African nations, even though the use of nationality as a predictor is less significant as compared to the traditional culture. Statistics have it that each year, not less than three million women are circumcised, and more hundred million females have already been circumcised [2].

In Ghana, the magnitude of FGM practice is variable among regions and districts, but this practice is very dominant among the northern tribes [3, 4]. Even though the overall prevalence was 4%, that of the Upper East Region was 38%, and that of a district (Bawku municipality) was 82% [4]. It is believed that the higher prevalence in northern Ghana can be attributed to the variable nature of people and culture and the proximity of neighboring nations such as Mali, Togo, and Burkina Faso where the practice is widespread [5].

There are a lot of short- and long-term complications associated with the practice of FGM. Some of these short-
period complications include psychological trauma, hemorrhage, shock, very severe pain, genital tissue swelling, impaired wound healing, increased exposure to blood, and transmittable infections such as human immunodeficiency virus (HIV) and hepatitis B sharing of the same knife or bladder during the procedure [6]. Moreover, among the long-term complications are chronic infections of the genital tract, reproductive tract and urinary tract, menstrual problems, and sexual performance disturbances such as pain during sexual intercourse [6–9].

Many factors have shown a significant relationship with FGM practice, and among these include demographic factors such as age, educational background, religion, culture, and economic status [10–12]. In sub-Saharan African nations, studies on economic status had a significant relation with FGM [10, 11]. Women from better economic homes were less likely to involve in FGM. And younger and well-educated women are negatively associated with FGM practice [10–13].

Additionally, a study in northern Ghana found a significant relationship between a woman’s demographic characteristics and FGM. Predictors’ factors were aged 35–49 years, no formal education or primary education, and married women [5]. This current study is aimed at identifying the socioeconomic predictors of female genital mutilation in Ghana.

2. Materials and Methods

The design adopted for this study was a descriptive cross-sectional survey relying on data from the Ghana Multiple Indicator Cluster Survey (MICS) 2017/18. The survey was conducted from October 2017 to January 2018 by the Ghana Statistical Service with collaborator partners such as the Ministry of Health, Ministry of Education, Ministry of Sanitation and Water Resources, Ministry of Gender, Children, and Social Protection, Ghana Health Service, and the Ghana Education Service as part of the Global MICS Programme and technical support from the United Nations Children’s Fund (UNICEF), with government funding and financial support from UNICEF, KOICA, UNDP, USAID, and the World Bank through the Statistics for Results Facility–Catalytic Fund (SRF-CF).

The sampling frame assumed was from the Ghana 2010 Population and Housing Census (PHC). This encompassed all women (10,840) aged 15–49 years who were permanent occupants of selected households or visitors who stayed in selected households the night before the survey.
2.1. Statistical Analysis. SPSS version 20 (IBM Corp., 2011, and NY) was used for the analysis. Categorical variables results were presented using frequencies and percentages in tables. The association between dependent and independent variables was done using chi-square. The binary logistic regression model was used to identify the predictor variables of FGM. Statistical significance was set at a P value of <0.05.

### Table 3: Association socioeconomic characteristics and female genital mutilation in Ghana.

|                                | Circumcised No | Circumcised Yes | X²      | Df | P value |
|--------------------------------|----------------|-----------------|---------|----|---------|
| Area                           |                |                 |         |    |         |
| Urban                          | 4548           | 151             | 582.021 | 1  | ≤ .001  |
| Rural                          | 5016           | 1121            |         |    |         |
| Western                        | 992            | 44              | 2770.331| 9  | ≤ .001  |
| Central                        | 897            | 8               |         |    |         |
| Greater Accra                  | 1087           | 28              |         |    |         |
| Volta                          | 654            | 5               |         |    |         |
| Eastern                        | 812            | 7               |         |    |         |
| Ashanti                        | 1617           | 75              |         |    |         |
| Brong-Ahafo                    | 876            | 38              |         |    |         |
| Northern                       | 1065           | 86              |         |    |         |
| Upper East                     | 871            | 275             |         |    |         |
| Upper West                     | 693            | 706             |         |    |         |
| Below 15                       | 964            | 273             | 158.316 | 3  | ≤ .001  |
| 15-24                          | 6722           | 885             |         |    |         |
| 25-34                          | 1339           | 96              |         |    |         |
| 35 years and above             | 118            | 10              |         |    |         |
| Akan                           | 4021           | 14              | 1963.652| 3  | ≤ .001  |
| GA/Damgmme                     | 662            | 2               |         |    |         |
| Ewe                            | 897            | 3               |         |    |         |
| Guan                           | 353            | 9               |         |    |         |
| Ethnicity                      |                |                 |         |    |         |
| Gruma                          | 444            | 14              |         |    |         |
| Mole Dagbani                   | 2073           | 902             |         |    |         |
| Grusi                          | 325            | 135             |         |    |         |
| Mande                          | 46             | 21              |         |    |         |
| Other                          | 737            | 172             |         |    |         |
| Preprimary or none             | 3060           | 1041            | 1217.089| 4  | ≤ .001  |
| Primary                        | 1859           | 135             |         |    |         |
| Educational level              |                |                 |         |    |         |
| JSS/HJS/middle                 | 3299           | 67              |         |    |         |
| SSS/SHS/secondary              | 913            | 26              |         |    |         |
| Higher                         | 431            | 3               |         |    |         |
| Have health insurance          |                |                 |         |    |         |
| Yes                            | 5420           | 608             | 35.802  | 1  | ≤ .001  |
| No                             | 4144           | 664             |         |    |         |
| Functional difficulties (age 18-49 years) |                |                 |         |    |         |
| Has functional difficulty      | 1063           | 151             | .608    | 1  | .436    |
| Has no functional difficulty   | 8482           | 1121            |         |    |         |
| Poorest                        | 2384           | 833             | 990.454 | 1  | ≤ .001  |
| Second                         | 1574           | 217             |         |    |         |
| Wealth index quintile          |                |                 |         |    |         |
| Middle                         | 1761           | 115             |         |    |         |
| Fourth                         | 1857           | 51              |         |    |         |
| Richest                        | 1988           | 56              |         |    |         |

3. Results

3.1. Socioeconomic Characteristics of Respondents. The majority (56.6%) of the women were from rural, and dominant (15.6%) of them were from the Ashanti region and in terms of ethnicity, about 37.2% of them were from the Akan tribe. Most (73.1%) of them first got married when they were between 15 and 24 years. About 37.8% of them had a
3.2. Female Genital Mutilation Prevalence in Ghana and Associated Factors. Overall FGM prevalence, this study recorded was 11.7%. The region with the highest (50.5%) prevalence was the Upper West Region, and the lowest (0.9%) prevalence was recorded in the central and eastern regions (Table 2).

Chi-square analysis revealed a significant relationship between FGM and socioeconomic characteristics such as area of residence, the region from, age at first marriage, ethnicity, educational level, health insurance coverage, functional difficulty, and wealth index quintile (P ≤ 0.001) (Table 3).

3.3. Predictors of FGM in Ghana. Area of residence predicted FGM, and those from rural were more likely 2.3 times to engage in FGM compared to those from urban (AOR = 2.30, 95% C.I. = 1.75 – 3.00). Women from all regions except the Upper West Region when compared to those from the western region were protected from FGM (P < 0.05). Women from the Upper West Region were more likely 1.8 times to engage in FGM compared to those from the western region (AOR = 1.84, 95% C.I. = 1.23 – 2.75). In terms of ethnicity, the tribes that predicted FGM when compared with the

| Residence (rural/urban) | B     | S.E.  | Wald   | Sig.  | AOR   | 95% C.I. for AOR |
|-------------------------|-------|-------|--------|-------|-------|-----------------|
| Western                 | .831  | .138  | 36.408 | ≤ .001| 2.296 | 1.753 – 3.007   |
| Central                 | -1.852| .424  | 4.039  | .044  | .426  | .186 – .979     |
| Greater Accra           | -1.317| .301  | 1.115  | .291  | .728  | .404 – 1.312    |
| Volta                   | -1.762| .544  | 10.489 | .001  | .172  | .059 – .499     |
| Eastern                 | -1.746| .440  | 15.784 | ≤ .001| .174  | .074 – .413     |
| Ashanti                 | -0.692| .232  | 8.917  | .003  | .500  | .318 – .788     |
| Brong-Ahafo             | -1.193| .265  | 20.245 | ≤ .001| .303  | .180 – .510     |
| Northern                | -1.569| .229  | 46.909 | ≤ .001| .208  | .133 – .326     |
| Upper East              | -0.513| .212  | 5.846  | .016  | .599  | .395 – .907     |
| Upper West              | .608  | .206  | 8.700  | .003  | 1.836 | 1.226 – 2.750   |
| Below 15                | 9.009 |       |        |       |       |                 |
| 15-24                   | -0.284| .095  | 8.845  | .003  | .753  | .624 – .908     |
| 25-34                   | -0.247| .158  | 2.429  | .119  | .782  | .573 – 1.066    |
| 35 years and above      | -0.062| .435  | .020   | .887  | .940  | .401 – 2.206    |
| Akan                    |       |       | 246.865| ≤ .001|       |                 |
| GA/Dangme               | -0.038| .772  | .002   | .961  | .963  | .212 – 4.373    |
| Ewe                     | .364  | .660  | .304   | .581  | 1.439 | .395 – 5.240    |
| Guan                    | 2.188 | .472  | 21.465 | ≤ .001| 8.919 | 3.534 – 22.509  |
| Gruma                   | 1.864 | .407  | 20.988 | ≤ .001| 6.447 | 2.905 – 14.310  |
| Mole Dagbani            | 3.640 | .299  | 148.010| ≤ .001| 38.100| 21.195 – 68.489 |
| Grusi                   | 3.813 | .314  | 147.261| ≤ .001| 45.302| 24.470 – 83.869 |
| Mande                   | 4.228 | .408  | 107.642| ≤ .001| 68.576| 30.853 – 152.421|
| Other                   | 3.379 | .306  | 122.185| ≤ .001| 29.328| 16.111 – 53.388 |
| Preprimary or none      | 136.214|     |        | ≤ .001|       |                 |
| Primary                 | -0.712| .111  | 40.934 | ≤ .001| .491  | .395 – .610     |
| JSS/JHS/middle          | -1.363| .148  | 84.693 | ≤ .001| .256  | .191 – .342     |
| SSS/SHS/secondary       | -1.211| .232  | 27.142 | ≤ .001| .298  | .189 – .470     |
| Higher                  | -2.625| .606  | 18.773 | ≤ .001| .072  | .022 – .238     |
| Health insurance        | .109  | .075  | 2.077  | .150  | 1.115 | .962 – 1.293    |
| Poorest                 | 14.105|       |        | .007  |       |                 |
| Second                  | .079  | .104  | .568   | .451  | 1.082 | .882 – 1.327    |
| Middle                  | -.019 | .143  | .018   | .892  | .981  | .741 – 1.298    |
| Fourth                  | -1.223| .194  | 1.329  | .249  | .800  | .547 – 1.169    |
| Richest                 | .587  | .211  | 7.718  | .005  | 1.799 | 1.189 – 2.722    |
Akan tribe were Guan (AOR = 8.91, 95%C.I. = 3.53 – 22.51), Gruma (AOR = 6.45, 95%C.I. = 2.91 – 14.31), Mole-Dagbani (AOR = 38.10, 95%C.I. = 21.20 – 68.49), Grusi (AOR = 45.30, 95%C.I. = 24.47 – 83.49), Mande (AOR = 68.58, 95%C.I. = 30.85 – 152.42), and other tribes (AOR = 29.33, 95%C.I. = 16.11 – 53.39).

The history of FGM was less likely 0.8 times among women with a marriage age of 15-24 years when compared to those with marriage age before 15 years (AOR = 0.75, 95%C.I. = 0.62 – 0.91). Women with educational level primary and above were less likely to engage in FGM compared to those with pre-primary or none (P < 0.05). Women from the richest wealth index quintile were more likely 1.8 times to engage in FGM compared to those from the poorest wealth index quintile (AOR = 1.80, 95%C.I. = 1.19 – 2.72) (Table 4).

4. Discussion

Overall FGM prevalence, this study recorded was 11.7%. The region with the highest (50.5%) prevalence was the Upper West Region, and the lowest (0.9%) prevalence was recorded in the central and eastern regions. There is a decline in national prevalence when compared to an earlier study using MICS data, which recorded a prevalence of 15.9%. In this same study, the prevalence was high among women of the Upper West Region [14]. This confirms other results that in Ghana, the magnitude of the practice of FGM is variable among regions and districts, and that this practice is very dominant among the northern tribes [3, 4]. Even within the regions, it is variable among districts in a study through the overall prevalence was 4%, and that of the Upper East region was 38%, and that of a district (Bawku municipality) was 82% [4]. The variation of prevalence across the regions of Ghana can be attributed to the variable cultural practices, and this confirms the fact that using nationality as a predictor is less significant when compared with using traditional culture [2]. It is believed that the higher prevalence in northern Ghana can be attributed to the variable nature of people and culture and the proximity of neighboring nations such as Mali, Togo, and Burkina Faso where the practice is widespread [5].

This is the first of a few epidemiological studies on FGM with an effort of shedding light on etiology and predictors. This study was not without limitations as not all variables significantly related to the study topic were studied, for example, religious affiliation. Two variable analyses revealed a significant relationship between FGM and socioeconomic characteristics such as area of residence, the region from, age at first marriage, ethnicity, educational level, health insurance coverage, functional difficulty, and wealth index quintile (P < 0.001). These factors were significantly related to FGM in other studies [10–12].

Area of residence predicted FGM, and those from rural were more likely 2.3 times to engage in FGM compared to those from urban. Women from the regions except the Upper West Region were protected from FGM when compared to those from the western region (P < 0.05). Women from the Upper West Region were more likely 1.8 times to engage in FGM compared to those from the western region. In terms of ethnicity, the tribes that predicted FGM when compared with the Akan tribe were Guan, Gruma, Mole-Dagbani, Grusi, Mand, and other tribes. This confirms similar study results in which FGM practice is highly predominant among women in the Upper West Region and the Mole/Dagbani [14]. Ethnicity brings cultural variation, and it is believed the variable nature of people and their culture contributes to the ethnic variations [5].

Women with at least a primary educational level were less likely to engage in FGM compared to those with no education; meaning, lack of formal education was a predictive factor for FGM. Additionally, women from the richest wealth index quintile were more likely 1.8 times to engage in FGM compared to those from the poorest wealth index quintile. In sub-Saharan African studies, economic status had a significant relation with FGM, and not in line with this current study, women from better economic homes were less likely to involve in FGM. [10, 11]. However, in line with this current study, well-educated women were less likely to practice FGM [10–13].

The history of FGM was less likely 0.8 times among women with a marriage age of 15-24 years compared to those with marriage age below 15 years. The implication of this is that child marriage below 15 years was more likely among those with FGM practice history, and this is in line with other earlier studies or works that FGM had a significant relation with child marriage below 18 years [15, 16].

5. Conclusion

The study prevalence of FGM is still high in the northern part of Ghana, and the predicted factors were residence region, ethnicity, educational level, and economic status.

Data Availability

All data related to the findings of this study are available from the Multiple Indicator Cluster Survey (MICS) website upon request.

Conflicts of Interest

There is no conflict of interest with this submission.

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