

Examining the Association between Female Genital Mutilation and Early Sexual Initiation among Adolescent Girls and Young Women in Sub-Saharan Africa

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Abstract: Despite several attempts by governments and non-governmental organizations to eliminate female genital mutilation or cutting, it is puzzling that this traditional procedure is widely practiced today in many parts of sub-Saharan Africa (SSA). Scholarly arguments on the influence of female genital mutilation on sexual behavior up until now remain inconclusive. The current study sought to examine the association between female genital mutilation and early sexual initiation among girls and young women (AGYW) in SSA. Data from Demographic and

Health Surveys (DHS) of 12 SSA countries were combined. A total of 30,089 AGYW (15-24 years) who had ever had sex and had complete information on all the variables of interest were considered. The outcome variable for the study was early sexual initiation. The study employed multilevel logistic regression for the data analysis, with reported odds ratio and associated 95% confidence intervals (CIs). The overall prevalence of female genital mutilation among AGYW was 49.9%, with the highest and lowest prevalence in Guinea (95.8%) and Togo (3.3%) respectively. The prevalence of early sexual initiation was 42.4%, with the highest and lowest prevalence in Niger (59.9%) and Burkina Faso (30.6%) respectively. AGYW who had not experienced female genital mutilation were less likely to have early sexual initiation [OR= 0.74, CI= 0.70-0.78], compared to those who had experienced female genital mutilation, after controlling for significant covariates. The likelihood of early sexual initiation was high among AGYW aged 15-19 [OR=2.38, CI=2.26-2.51] but low among AGYW with secondary education [AOR=0.58, CI=0.54-0.63], those who had never married [OR=0.68, CI=0.60-0.78], those in households with richest wealth quintile [OR=0.64, CI=0.57-0.72], those who were exposed to mass media [OR=0.88, CI=0.83-0.93], and those working [OR=0.91, CI=0.87-0.96]. Not undergoing female genital mutilation in the midst of socio-economic factors (e.g., education level, household wealth) could limit AGYW from early sexual debut. These findings underscore the need for effective campaign and programs (e.g., educational programs, entrepreneurial training, micro-finance schemes) against the practice of female genital mutilation. Policy interventions (e.g., “schooling for the girl-child” initiatives) that might delay early sexual initiation among adolescent girls and young women in the midst of identified socio-economic factors should be developed.

Keywords: Adolescent girls; Female genital mutilation/cutting; Global health; Sexual initiation; Sexual and reproductive health; Young women

1. Introduction

Recent statistics show that female genital mutilation or cutting is practiced in about 40 countries across the world but generally in Africa. Approximately 200 million girls and women have reportedly undergone female genital mutilation. An estimated 101 million girls above the age of 10 years have been mutilated in Africa alone, and a further 3 million are at risk of

undergoing female genital mutilation yearly [1,2,3]. Female genital mutilation prevalence varies markedly from location to location over time. The procedure is practiced in about 29 countries in Africa, with most of these countries in sub-Saharan Africa (SSA) [4]. The female genital mutilation trend ranges from as low as 1% in countries such as Uganda and Cameroon, to near universality in countries such as Egypt, Guinea, and Somalia [2,3]. According to UNICEF [5], the practice is mostly predominant in countries around the Atlantic Coast to the Horn of Africa, with wide variations in the percentages of girls and women affected within and across countries.

Female genital mutilation remains a widespread traditional practice in many parts of sub-Saharan Africa. Despite several attempts by governments, non-governmental organizations, and renowned institutions (e.g., UNICEF, WHO) to help eliminate this practice, reports and scholarly information suggest that the practice still persists in many societies [1,2,3,6,7]. According to some researchers, the persistence of FGM is deeply rooted in the cultural and social traditions of societies where this procedure is widely performed (e.g., [8,9,10,11]). A wide range of sociocultural drivers for FGM include dignity and honor, control over sexuality, purity, rite of passage, tradition, and aesthetics [10,12,13,14]. The common basis for these explanations hinges on the social position of women in these societies (i.e., social stratification system (see [15])). For instance, honor and dignity are considered vital in family life and are assessed based on behavior of its members. Hence, detestable behavior (e.g., inappropriate sexual encounter) can seriously dent a family's image, suggesting that girls and women are to maintain stringent chastity codes that preserve virginity before marriage and marital fidelity [8,9]. Female genital mutilation is, therefore, considered as a strategy to control female sexuality [7,16]. Through a blend with other strategies (e.g., dress codes), female genital mutilation is perceived as a vital traditional procedure that guarantees girls' maintenance of their virginity before marriage and ensures their marriageability, a marker of improved social status through social control [7,8,9,16, 17, 19].

Some studies (e.g., [10,17,18]) reported that girls and women are saddled with huge social pressure to undergo female genital mutilation for fear of being labeled as outcasts, immoral and, in some cases, ostracized by their communities. One argument often raised and connected to female genital mutilation is the perceived reduction in a woman's capacity to experience sexual pleasure. At the heart of the argument is that genital mutilated women will delay sexual encounter, not engage in premarital sex, and will not practice infidelity in marriage. From this perspective, Van Rossem and Gage [7] argue that there should be a strong association between

female genital mutilation and a woman's sexual history, including her age at first sex, her age at first marriage, and the likelihood of premarital sex. A counter argument is that female genital mutilation does not necessarily guarantee that girls and women would not engage in premarital sex or remain faithful, but rather, the practice is more likely to generate a false sense of security and allow "deviant" sexual behavior that may even be concealed [8,9]. For example, Almroth et al. [17] showed in their investigation in a Sudanese village that the frequently cited motives behind female genital mutilation practice for one's daughter were based on traditional customs and social standing. According to these authors, safeguarding a woman's virginity was hardly stated.

Research on female genital mutilation has primarily focused on the physical and psychosocial health effects decrying the practice, personal experience, policies, programs, and interventions to end the practice [1,20]. Studies on the extent to which female genital mutilation practice is associated with the onset of sexual behavior of women are sparse [16]. Therefore, the current study seeks to investigate the association between female genital mutilation and early sexual initiation as measured by age at first sexual intercourse among adolescent girls and young women (AGYW) in SSA. The effect of socio-economic and demographic factors to examine how they interact with female genital mutilation to predict early sexual initiation was further controlled. The findings from this study would help provide important empirical information for planning interventions and policy direction that could assist societies to abandon female genital mutilation.

2. Material and Methods

2.1. Data Source

Data from 12 SSA countries' Demographic and Health Surveys (DHS) were employed in the current study. Specifically, data from the women's recode file was used. DHS is a nationally representative survey that is conducted in over 85 low- and-middle-income countries globally. The survey focuses on essential maternal and child health markers including "female genital mutilation/cutting" and "sexual initiation" [21]. The survey employs a two-stage stratified sampling technique in sampling the respondents, which makes the data nationally representative (see [22] for details). A total of 30,089 AGYW (15-24 years) who had ever had sex and had complete information on all the variables of interest were considered.

2.2. Definition of Variables

2.2.1. Outcome Variable

The outcome variable for the study was early sexual initiation. To obtain this variable, AGYM were asked whether they have ever had sex. A follow-up question of “at what age did you first have sex?” was asked those who had ever had sex. Responses to this question were in single years. For this study, AGYW who had sex before the age of 17 were considered as early initiators of sex while those who had sex between the ages of 17 and 24 were considered as late initiators of sex. The responses were recoded into “late sexual initiation” = 0 and “early sexual initiation” = 1 [23,24].

2.2.2. Independent Variable

The study looked at female genital mutilation as the independent variable. To derive this variable, respondents were asked whether their genital area was “nicked with nothing removed;” “something removed,” or “sewn shut”. The responses were ‘Yes’ and ‘No’. These were coded as follows: No = 0, Yes = 1.

2.2.3. Control Variables

Ten (10) control variables were considered and broadly grouped into individual and household variables as well as community-level variables. The individual and household variables included age, marital status, educational status, employment status, wealth, exposure to mass media, and sex of household head. The community-level factors included type of place of residence, community literacy level and community socio-economic status. Community socio-economic status and community literacy level were operationalized as the proportion of women in richest household wealth quintile and those in higher level of education in the community respectively. These variables are not directly available in data but generated from household wealth quintile and educational level of women through method of aggregation at the cluster level. These variables were not determined a priori; instead, they were determined based on parsimony, theoretical relevance, and practical significance with early sexual initiation among young women [23,25,26].

2.2.4. Statistical Analysis

The study employed both descriptive and inferential statistics in analyzing the data using STATA version 14.0. First, a univariate analysis using frequencies and percentages was used to calculate the proportion of AGYW who had undergone female genital mutilation and the proportion who engaged in early sexual initiation. These results were presented using bar charts. The second step was a bivariate analysis that calculated the proportions of early sexual initiation across the independent variables with their significance levels at $p < 0.05$ (see Table 1). Variables that showed statistical significance in the bivariate analysis were further analyzed using multilevel logistic regression. Before conducting the multilevel logistic regression, a multicollinearity test was conducted among all the statistically significant variables to determine whether there was evidence of multicollinearity between them. Using the variance inflation factor (VIF), the multicollinearity test showed that there was no evidence of collinearity among the explanatory variables (Mean VIF = 1.56, Maximum VIF = 2.90, Minimum VIF = 1.03). For the multilevel logistic regression, a two-stage approach was employed. The two-level modelling in this study indicates that women were nested within clusters while clusters were considered as random effects to cater for the unexplained variability at the contextual level [27]. Four models were generated from the multilevel modelling, consisting of the empty model (model 0), Model I, Model II, and Model II. Model 0 showed the variance in early sexual initiation attributed to the distribution of the primary sampling units (PSUs) in the absence of the explanatory variables. Model I had the individual-level factors and early sexual initiation while Model II contained the contextual level factors and early sexual initiation. The final model (Model III) was the complete model that had the individual and contextual level factors and early sexual initiation. Model comparison was done using the log-likelihood ratio (LLR) and Akaike's Information Criterion (AIC) tests. Odds ratio and associated 95% confidence intervals (CIs) were presented for all the models apart from Model 0 (see Table 2). Sample weight (v005/ 1,000,000) and the SVY command were applied to correct for over- and under-sampling and to account for the complex survey design and generalizability of the findings respectively.

2.2.5. Ethical Approval

Ethical clearance was obtained from the Ethics Committee of ORC Macro Inc. as well as Ethics Boards of partner organisations of the various countries, such as the Ministries of Health.

The DHS follows the standards for ensuring the protection of respondents' privacy. Inner City Fund (ICF) International ensured that the survey complies with the U.S. Department of Health and Human Services regulations for the respect of human subjects. The current study used a secondary analysis of data and therefore no further approval was required. The data is in the public domain. Further information about the DHS data usage and ethical standards are available at <http://goo.gl/ny8T6X>.

3. Results

3.1. Prevalence of Female Genital Mutilation among Adolescent Girls and Young Women in Sub-Saharan Africa

The prevalence of female genital mutilation among AGYW in SSA is presented in Figure 1. The overall prevalence of female genital mutilation is 49.9%, with the highest and lowest prevalence in Guinea (95.8%) and Togo (3.3%) respectively.

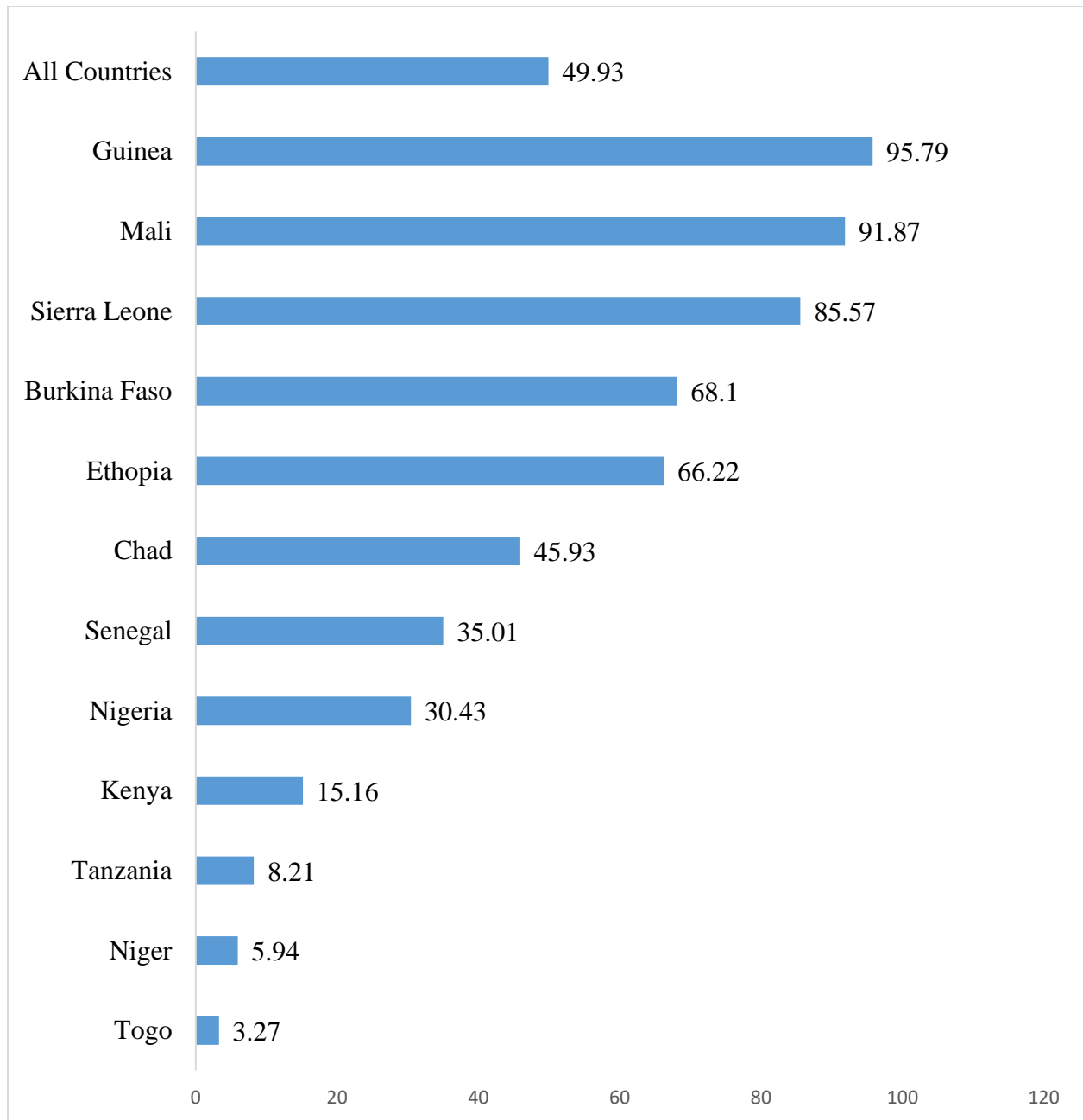


Figure 1. Prevalence of female genital mutilation among adolescent girls and young women in sub-Saharan Africa

3.2. Prevalence of Early Sexual Initiation among Adolescent Girls and Young Women in Sub-Saharan Africa

Figure 2 shows the prevalence of early sexual initiation among adolescent girls and young women in sub-Saharan Africa. The overall prevalence of early sexual initiation is 42.4%, with the highest and lowest prevalence in Niger (59.9%) and Burkina Faso (30.6%) respectively.

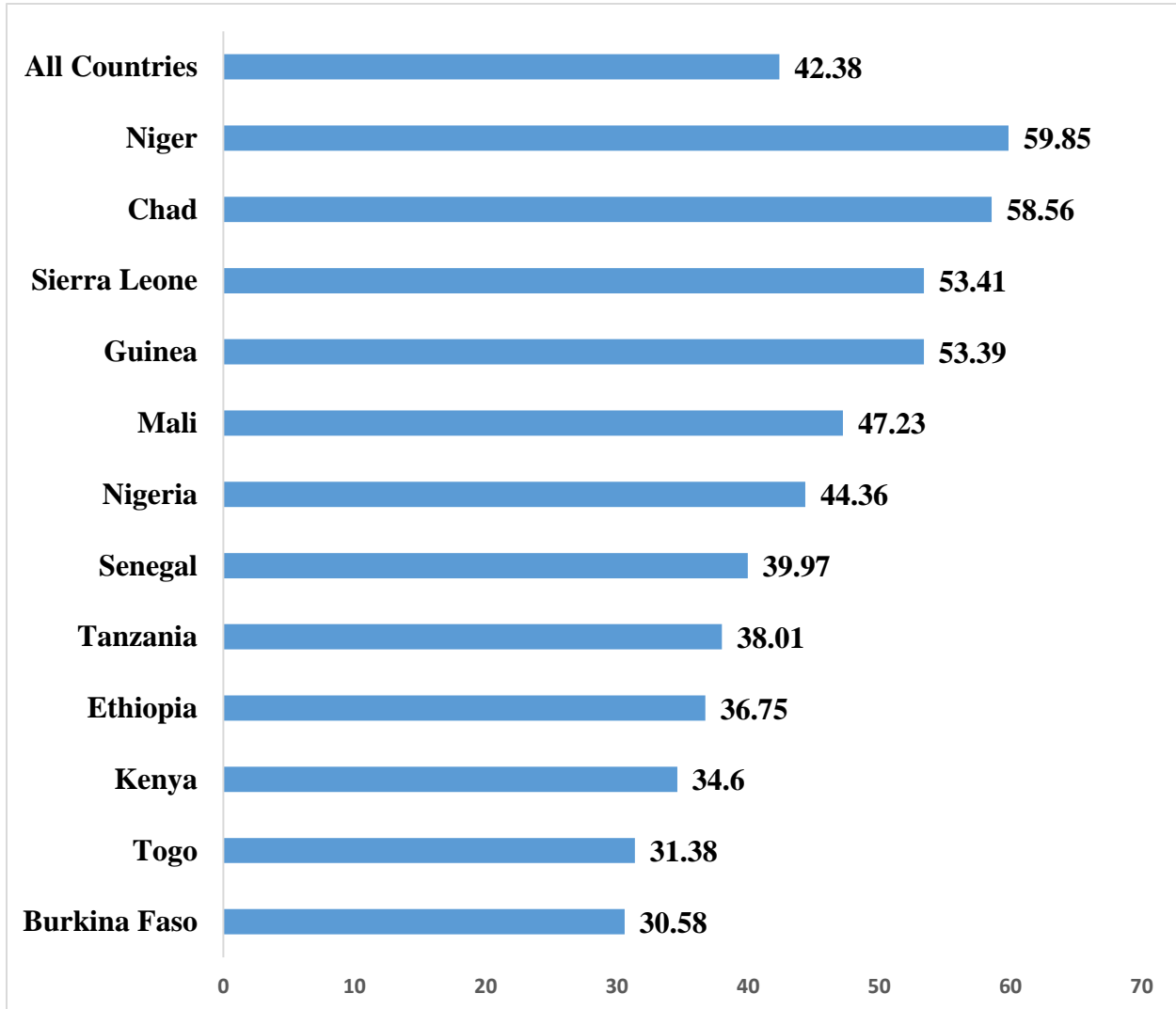


Figure 2. Prevalence of early sexual initiation among adolescent girls and young women in sub-Saharan Africa

3.3. Distribution of Early Sexual Initiation by Female Genital Mutilation and Socio-demographic Characteristics of Adolescent Girls and Young Women in Sub-Saharan Africa

Table 1 shows the distribution of early initiation by female genital mutilation and socio-demographic characteristics of adolescent girls and young women in sub-Saharan Africa. Nearly

50.1% of the adolescent girls and young women indicated that they have not experienced female genital mutilation/cutting, 36.7% of the adolescent girls and young women were aged 15-19, while 29.5% and 39.1% of the adolescent girls and young women were never married and had no education respectively. Approximately 41.0% of the adolescent girls and young women were not working and 17.2% were of poorest wealth quintile. Other results revealed that 26.5% were not exposed to mass media. Further, 35.2% and 57.4% were in low category of community literacy level and community socioeconomic status, 36.5% resided in urban areas, and 78.0% were in male-headed households respectively. Table 1 showed a bivariate analysis of the proportions of early sexual initiation across all the independent variables with their significance levels at $p < 0.05$.

Table 1. Distribution of early sexual initiation by female genital mutilation and socio-demographic characteristics of adolescent girls and young women

Variables	Weighted N	Weighted %	Early sexual initiation	χ^2 (p-values)
Female genital mutilation				319.1 (<0.001)
No	15071	50.1	36.7	
Yes	15027	49.9	48.1	
Age				6.3 (<0.001)
15-19	11033	36.7	15.4	
20-24	19065	63.3	34.8	
Marital status				103.1 (<0.001)
Never married	8900	29.5	37.4	
Married	17912	59.5	44.7	
Cohabiting	1948	6.6	39.2	
Widowed/divorced	1301	4.3	49.0	
Education				909.6 (<0.001)
No education	11756	39.1	50.7	
Primary	8214	29.3	45.6	
Secondary+	10128	33.6	30.1	
Employment status				7.5 (<0.001)
Not working	12355	41.0	42.7	
Working	17743	59.0	42.3	
Wealth				930.5 (<0.001)
Poorest	5167	17.2	54.3	

Poorer	5462	18.1	50.3	
Middle	5592	18.6	45.4	
Richer	6433	21.4	39.3	
Richest	7443	24.7	28.7	
Mass media exposure				321.8 (<0.001)
No	7975	26.5	52.0	
Yes	22123	73.5	38.9	
sex of household head				9.5 (0.002)
Male	23474	78.0	42.9	
Female	6624	22.0	40.4	
Residence				536.3 (<0.001)
Urban	10995	36.5	31.8	
Rural	19103	63.5	48.5	
Community literacy level				728.3 (<0.001)
Low	10596	35.2	52.3	
Medium	10885	36.2	40.8	
High	8617	28.6	32.2	
Community socioeconomic status				695.2 (<0.001)
Low	17279	57.4	49.3	
Moderate	2176	7.2	42.7	
High	10643	35.4	31.2	

3.4. Fixed and random effects results on the association between female genital mutilation and early sexual initiation among adolescent girls and young women in Sub-Saharan Africa

Fixed and random effects results on the association between female genital mutilation and early sexual initiation among adolescent girls and young women in SSA are presented in Table 2. With the fixed effects analysis, results in Table 2 on female genital mutilation and early sexual initiation showed that adolescent girls and young women who have not experienced female genital mutilation were less likely to have early sexual initiation [OR= 0.74, CI= 0.70-0.78] compared to those who experienced female genital mutilation. Adolescent girls and young women aged 15-19 [OR = 2.38, CI = 2.26-2.51] were more likely to initiate early sex, compared to those aged 20-24. The results further showed that adolescent girls and young women with secondary education [AOR = 0.58, CI = 0.54-0.63] had lower odds of initiating early sex, compared to those who had no education. The odds of early sexual initiation increased with marital status, as adolescent girls and young women who were never married [OR = 0.68, CI =

0.60-0.78] were less likely to initiate early sex, compared with those who were divorced/separated. The study further showed that the odds of early sexual initiation was low among adolescent girls and young women who lived in communities with a high level of literacy [OR = 0.77, CI = 0.71-0.83], in households with richest wealth quintile [OR = 0.64, CI = 0.57-0.72], those who were exposed to mass media [OR = 0.88, CI = 0.83-0.93] and those working [OR = 0.91, CI = 0.87-0.96].

As shown in Table 2, in the empty model, there were substantial variations in the likelihood of early sexual initiation across the clustering of the PSUs ($\sigma^2 = 0.06$, 95% CI 0.04-0.08). The empty model showed that 2.1% of the total variance in female genital mutilation was attributed to the between-cluster variation of characteristics (ICC = 0.02). The between-cluster variations showed a decreased from 2.1% to 1.2% from the empty model to the individual-level only model (Model I). From Model I, the ICC declined to 1.3% (ICC = 0.013) in the community-level factor only model but increased to 2.2% in the complete model (Model III), which had both the individual and community level factors. This analysis explains that the variations in the likelihood of female genital mutilation could be attributed to the differences in the individual-level factors.

Table 2. Fixed and random effects results on the association between female genital mutilation and early sexual initiation among adolescent girls and young women

Variables	Model 0	Model I AOR[95%CI]	Model II AOR[95%CI]	Model III AOR[95%CI]
Female genital mutilation				
No		0.74*** (0.70-0.78)		0.74*** (0.70-0.78)
Yes		1		1
Age				
15-19		2.39*** (2.27-2.52)		2.38*** (2.26-2.51)
20-24		1		1
Marital status				
Never married		0.68*** (0.60-0.78)		0.68*** (0.60-0.78)
Married		0.72*** (0.64-0.81)		0.71*** (0.63-0.81)
Cohabiting		0.73*** (0.62-0.85)		0.73*** (0.62-0.85)
Widowed/divorced		1		1
Education				
No education		1		1

Primary		0.95 (0.89-1.01)		0.98 (0.92-1.04)
Secondary+		0.55 ^{***} (0.51-0.59)		0.58 ^{***} (0.54-0.63)
Employment status				
Not working		1		1
Working		0.91 ^{***} (0.87-0.96)		0.91 ^{***} (0.87-0.96)
Wealth				
Poorest		1.11 [*] (1.02-1.20)		1.09 [*] (1.01-1.18)
Poorer		1		1
Middle		0.88 ^{**} (0.82-0.96)		0.90 ^{**} (0.83-0.97)
Richer		0.78 ^{***} (0.72-0.84)		0.81 ^{***} (0.74-0.88)
Richest		0.58 ^{***} (0.53-0.62)		0.64 ^{***} (0.57-0.72)
Mass media exposure				
No		1		1
Yes		0.86 ^{***} (0.81-0.91)		0.88 ^{***} (0.83-0.93)
Sex of household head				
Male		1		1
Female		1.04 (0.98-1.11)		1.05 (0.98-1.11)
Residence				
Urban			0.91 ^{**} (0.84-0.98)	1.03 (0.95-1.11)
Rural			1	1
Community literacy level				
Low			1	1
Medium			0.74 ^{***} (0.70-0.78)	0.90 ^{***} (0.84-0.96)
High			0.59 ^{***} (0.55-0.64)	0.77 ^{***} (0.71-0.83)
Community socio-economic status				
Low			1	1
Moderate			0.97 (0.89-1.07)	1.09 (0.99-1.020)
High			0.68 ^{***} (0.63-0.74)	0.96 (0.88-1.06)
Random effect result				
PSU variance (95% CI)	0.06 (0.04-0.08)	0.04 (0.03-0.06)	0.04 (0.03-0.06)	0.03 (0.03-0.06)
ICC	0.021	0.012	0.013	0.022
LR Test	$\chi^2=92.75^{***}$	$\chi^2=42.34^{***}$	$\chi^2=52.93^{***}$	$\chi^2=38.73^{***}$
Wald chi-square		2444.73 ^{***}	898.47 ^{***}	2486.59 ^{***}
Model fitness				
Log-likelihood	-20493.199	-19117.273	-20029.137	-19091.7
AIC	40990.4	38266.55	40072.27	38225.4
N	30098	30098	30098	30098

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

AOR = Adjusted Odds Ratio; 1 = Reference category PSU = Primary Sampling Unit; ICC = Intra-Class Correlation; LR Test = Likelihood ratio Test; AIC = Akaike's Information Criterion

4. Discussion

The study investigated the association between female genital mutilation and early initiation of sex. Four of every ten girls or women initiate sex before their 17th birthday. The result indicated that circumcision rather increases the odds of engaging in early sexual activity, contradicting previous assertions that female genital mutilation reduces the likelihood of indulging in early sexual activity. However, the current finding is consistent with few previous studies (e.g., [28,29]). Oyefara [29] explains this association within the context of anomie theory. According to the theory, when people are denied of things which seem to be their legitimate rights, they are more likely to indulge in those things, by resorting to different mechanisms which are sometimes illegitimate. From this premise, when girls are circumcised with the hope of preventing them from involving in unapproved sexual acts, they rather feel the society is denying them their rights and thus, might initiate sex early as a way of reclaiming their rights.

The results also showed an association between age and early sexual initiation. Specifically, adolescent girls and young women aged 15-19 were more likely to initiate sex early, compared to those aged 20-24. Similarly, a study in Nigeria by Nnebue et al. [30] reported that the likelihoods of early sexual initiation decrease with age. Nnebue et al. [30] explain that as girls mature, they acquire the knowledge and skills to navigate relationships successfully, such that the rate of sexual escapade is curtailed as adolescents advance in age. This finding contrasts the finding of Abate et al. [31], who revealed higher odds of early sexual initiation among youth girls aged 20-24, compared to younger ones. Again, adolescent girls and young women with secondary education had lower odds of initiating early sex, compared to those who had no education. A study in Brazil established that young women with higher levels of education tend to delay their sexual initiation [32]. School norms against teenage pregnancy could possibly delay sexual initiation for in-school adolescents [33]. Ankomah et al. [34] also explained that young girls delay their sexual initiation for the fear of dropping out of school. Clearly, this fear of dropping out of school is not in the way of those without formal education, and this may explain their higher likelihood of initiating sex at an early age. Moreover, higher education may come with sexual education which may expose girls to some dangers involved in early sexual initiation [35]. Being aware of these dangers may discourage them from early sexual

initiation. Young girls without formal education may not be exposed to some of these dangers, thus their likelihood of engaging in sexual acts at an early age. Besides, formal education builds in women a sense of assertiveness and self-efficacy to postpone/delay sexual activity [36].

Other results further showed that the odds of early sexual initiation was low among AGYW who lived in households with the richest wealth quintile and those in communities with a high level of literacy. This finding is in tandem with previous findings on predisposing factors of early sexual initiation [37,38]. Specifically, Mmbaga et al. [39] showed that adolescents whose parents were wealthy transitioned into sexual debut much later than those whose parents were not wealthy. Greater wealth has been found to extend the timing of sexual initiation among women [24]. Similarly, adolescent girls who attend schools of high socioeconomic status have delayed sexual initiation [40]. The present study also reveals that other factors such as residency in communities with high literacy, which is strongly correlated with household wealth, may be operating alongside household wealth to create an enabling environment that ensures delay in sexual initiation for AGYW.

Similar to previous studies (e.g., [41]), AGYW who were exposed to mass media and those who were working were less likely to initiate sex early, compared with those who were not exposed to the mass media and those who were not working. Several factors such as food deprivation and inadequate clothing force young girls into early sexual initiation in SSA [42]. Economically disadvantaged young girls are often forced into early sexual activity because they lack the means to provide for their basic needs. Young women who are in wage-earning enterprises, on the other hand, may have the financial capacity to provide for themselves. This economic engagement reduces their vulnerability to engage in early sexual initiation. Mass media has been noted for its effectiveness in promoting health information [43,44]. Thus, young women who are exposed to mass media may be privy to health information, especially information on the dangers of early sexual initiation, and this may be the reason for their less likelihood of initiating sexual activities early.

Strengths and Limitations

The main strength of this study lies in its use of nationally representative data. The large sample size guarantees the generalizability of the findings. Despite these strengths, the study used cross-sectional survey data which is not immune to recall biases as a result of the retrospective nature of reporting sexual initiation. Moreover, the use of cross-sectional survey

data makes it impossible to establish causality of the findings. Also, the data may be subject to social desirability bias that might trigger under-reporting or over-reporting on sensitive issues related to sexuality.

Practical Implications

If female genital mutilation was an appropriate method for controlling female sexual behavior, one should anticipate a difference in the sexual behavior of women depending on their circumcision status, with circumcised adolescents and young women displaying more sexual restraint. However, current findings proved otherwise, suggesting that other socio-economic determinants may account for early sexual initiation among girls and young women in sub-Saharan Africa. Adolescents and young women's socio-economic independence or disparity can correctly or incorrectly skew their sexual initiation. Therefore, targeted interventions (e.g., educational programs, entrepreneurial training, micro-finance schemes) to promote positive social and economic change to restrict sexual initiation could be adopted. Community-level engagements through focus group discussions involving opinion leaders could also be encouraged for socio-cultural transformation using specific strategies like "schooling for the girl-child." Future research could explore other socio-cultural practices, their determinants, and potential intervention strategies to prevent female genital mutilation.

5. Conclusions

The present study investigated the association between female genital mutilation/cutting and early sexual initiation among adolescent girls and young women in sub-Saharan Africa. The study shows that the adolescent girls and young women who had undergone female genital mutilation were more likely to initiate sex early, compared with those who did not undergo female genital mutilation. The study also revealed an association between early sexual initiation and other factors such as level of education, age, and household wealth. These findings underscore the need for effective campaign and programs (e.g., educational programs, entrepreneurial training, micro-finance schemes) against the practice of female genital mutilation. Policy interventions (e.g., "schooling for the girl-child" initiatives) that might restrict early sexual initiation among adolescent girls and young women in the midst of identified socio-economic factors should be developed.

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