

Effect of female genital mutilation/cutting (FGM/C) experiences on pregnancy outcomes among women in Gambia: A regression analysis of the 2019-2020 Gambia Demographic and Health Survey

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Extended Abstract

Background

Female genital mutilation/cutting (FGM/C) remains a significant threat to the health and human rights women and girls globally. It is a deeply rooted cultural practice that not only violates human rights but also has profound health and social consequences. Despite marginal reductions in FGM/C prevalence in The Gambia, rates remain high at a prevalence of 73% among women of reproductive age. This study aims to examine the effects on Type II and III FGM/C, along with other relevant factors, on pregnancy outcomes among women in The Gambia.

Methods

Using data from the most recent Gambia Demographic and Health Survey (GDHS) conducted between November 21, 2019 and March 30, 2020, the study focused on a weighted sample of 4,490 women undergone genital mutilation. Data analysis was performed using SPSS version 26, employing descriptive and binary logistics regression modelling, with statistical significance was set at $p < 0.05$.

Results

The results indicate that less than one-fifth (16.6%) of women in the Gambia reported experiencing Type II FGM/C, involving the sewing closed of the genital area, while 88.3% reported experiencing Type III FGM/C, which entails the removal of genital flesh. Among women who experienced FGM/C, less than one-fifth (17%) experienced pregnancy loss. Circumcised women whose genital area was sewn closed were significantly more likely (aOR = 1.68; 95% CI = 1.39-2.04) to experience pregnancy loss compared those whose genital area was not sewn closed. After controlling for the effect of other factors, still shows a significant association between Type II FGM/C and pregnancy outcome. Women whose genital area was sewn closed were more likely (aOR = 1.39; 95% CI = 1.12-1.71) to experience pregnancy loss compared to those whose genital area was not sewn closed. There is an inverse relationship between the age of women and pregnancy outcome, thus the older the age the less likelihood of women to lose their pregnancy.

Women aged 15-19 (aOR = 0.15; 95% CI = 0.08-0.29), 20-24 (aOR=0.26;95% CI=0.16-0.42), 25-29 (aOR=0.46; 95% CI=0.30-0.69) and 30-34 (aOR = 0.57; 95% CI = 0.39-0.84) were less likely to experience pregnancy loss than those aged 45-49. In terms of marital status, women who were never married were less likely (aOR = 0.14; 95% CI = 0.06-0.31) to experience pregnancy loss than those who were formerly married. Women who are currently married were more likely (aOR = 2.68; 95% CI = 1.78-4.03) to experience pregnancy loss than those who were formerly married.

In addition, circumcised women with 1-3 children were more likely (aOR = 1.53; 95% CI = 1.09-2.16) to experience pregnancy loss than those with 7 and more children. Respondents who belong to the Serere ethnic group were less likely (aOR= 0.37; 95%CI=0.15-0.90) to experience pregnancy loss than those who are non-Gambians. Furthermore, women who belong to households accessing unimproved drinking water source were more likely (aOR=1.83; 95%CI=1.31-2.57) to experience pregnancy loss than those who used improved drinking water.

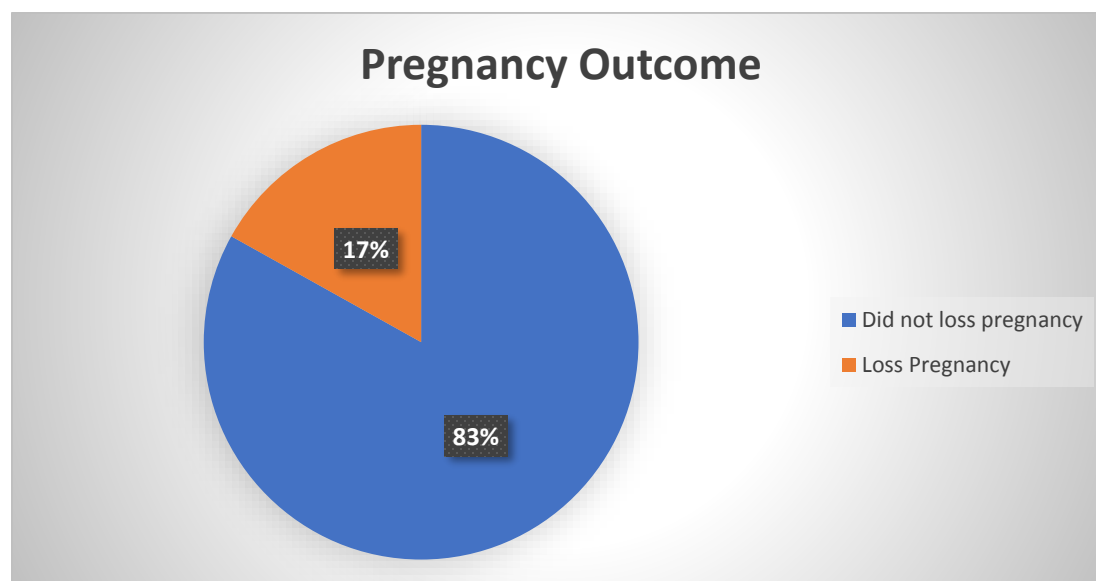
Conclusion

The study highlights the strong association between FGM/C and pregnancy loss along with other health complications. It underscores the need for enforced policies to eradicate this practice and ensure maternal health and well-being.

Keywords: Female genital mutilation, Pregnancy loss, Women, Survey, The Gambia

Figures and Tables

Figure 1: Pregnancy outcome among women who experience female genital mutilation



Source: Computed from the 2019-2020 Gambia Demographic and Health Survey (GDHS)

Table 1: Proportion of circumcised women who have undergone Type II and III FGM/C

Type II FGM/C	Number of Circumcised women	Percent
Genital area not sewn close	3746	83.4
Had genital area sewn close	744	16.6
Type III FGM/C		
No flesh removed from genital area	525	11.7
Had flesh removed from genital area	3965	88.3

Source: Computed from GDHS, 2019-2020

Table 4: Logistic regression of Type II and III FGM/C, individual, risk, health and household factors affecting pregnancy outcomes among women in The Gambia.

Variables	Pregnancy outcomes		
	Model I aOR [95% CI]	Model II aOR [95% CI]	Model III aOR [95% CI]
Main predictor factor			
FGM (Type II)			
Genital area not sewn closed	Ref		Ref
Had genital area sewn closed	1.68***[1.39-2.04]		1.39**[1.12-1.71]
FGM (Type III)			
No flesh removed from genital area		Ref	Ref
Had flesh removed from genital area		1.21[0.93-1.56]	0.88[0.66-1.18]
Individual factors			
Age of women			
15-19			0.15***[0.08-0.29]
20-24			0.26***[0.16-0.42]
25-29			0.46***[0.30-0.69]
30-34			0.57**[0.39-0.84]
35-39			1.05[0.74-1.49]

40-44	0.89[0.63-1.26]
45-49	Ref
Educational level	
No education	Ref
Primary	1.12[0.88-1.43]
Secondary	0.95[0.69-1.30]
Higher	0.61[0.35-1.07]
Literacy level	
Illiterate	Ref
Semi-literate	1.25[0.90-1.75]
Literate	1.26[0.91-1.75]
Marital Status	
Never Married	0.14***[0.06-0.31]
Currently Married	2.68***[1.78-4.03]
Formerly Married	Ref
Parity	
No child	0.95[0.57-1.58]
1-3 children	1.53*[1.09-2.16]
4-6 children	0.92[0.68-1.25]
7+ children	Ref
Religion	
Islamic	0.70[0.27-1.80]
Christianity	Ref
Ethnic group	
Mandinka/Jahanka	0.88[0.64-1.21]
Wollof	0.77[0.37-1.62]
Jola/Karoninka	0.88[0.59-1.30]
Fula/Tukulur/Lorobo	0.87[0.61-1.23]
Serere	0.37*[0.15-0.90]
Sarahule	0.87[0.57-1.33]
Other ethnic groups	0.59[0.30-1.15]
Non-Gambian	Ref

Type of place of residence

Urban	Ref
Rural	0.94[0.68-1.31]

Region of residence

Banjul	Ref
Kanifing	1.17[0.47-2.86]
Brikama	0.98[0.40-2.41]
Mansakonko	1.22[0.45-3.33]
Kerewan	1.29[0.49-3.42]
Kuntaur	1.17[0.41-3.30]
Janianbureh	0.79[0.29-2.21]
Basse	1.05[0.40-2.71]

Risk and Health factors**ANC visits**

No visits	1.42[0.68-2.98]
1-3 visits	0.99[0.75-1.31]
4+ visits	Ref

IPTp-SP uptake

Did not take SP/not pregnant	0.95[0.46-1.96]
Took SP	Ref

Anaemia Status

Anaemic	0.94[0.79-1.12]
Not anaemic	Ref

Household factors**Sex of Household Head**

Male	1.21[0.96-1.52]
Female	Ref

Age of Household Head (years)

18-29	Ref
30-39	1.27[0.79-2.04]
40-49	1.09[0.69-1.74]
50-59	1.25[0.78-2.02]

60-69	0.87[0.54-1.41]
70+	0.96[0.58-1.59]
Source of drinking water	
Improved	Ref
Unimproved	1.83***[1.31-2.57]
Toilet facility type	
Improved	Ref
Unimproved	1.12[0.91-1.39]
Type of cooking fuel	
Liquefied Petroleum Gas (LPG)	Ref
Charcoal	5.00[0.93-26.79]
Fuel wood	3.44[0.71-16.68]
Other cooking fuel	3.33[0.69-16.15]
Household size	
Poorest	Ref
Poorer	1.23[0.89-1.69]
Middle	1.14[0.80-1.61]
Richer	0.91[0.61-1.34]
Richest	1.03[0.67-1.57]

Source: Computed from 2019-2020 Gambia Demographic and Health Survey (GDHS)

*P<0.05, **P<0.01, ***P<0.001; aOR=Adjusted Odds Ratio

Model I= Type II FGM/C only

Model II=Type III FGM/C only

Model III=final model adjusted for Type II and Type III FGM/C individual, risk, health and household variables