



Female genital mutilation: Nigerian Igbo men's low acceptance of the practice

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Abstract

Female genital mutilation (FGM) involves the cutting of the external female genital organs for non-medical purposes. It is a widespread public health problem in Nigeria as it affects the health of women and girls. The views of women about FGM are widely researched and known; however, very little empirical research has been conducted to understand the views of men.

Aim This study therefore sought to examine men's views with regard to the continuation of FGM and its associated factors in a rural Igbo community in Nigeria.

Subject and Method This paper reports the results of a survey of 215 men aged 18 and above living in Isuikwuato Local Government Area, Uturu in Nigeria. Bivariate and binary logistic regression were performed on 215 completed and returned questionnaires (86% response rate) using the Statistical Package for Social Science. This is the first study to investigate Nigerian Igbo men's views of FGM.

Results Descriptive statistics revealed that almost two-thirds of the sample (63.7%) thought FGM should be discontinued. Logistic regression found that owning a television and/or a radio and holding a Christian faith significantly predicted favouring the discontinuation of FGM.

Conclusion This study provides evidence to suggest that some Nigerian Igbo men's attitudes about FGM appear to be generally less than favourable. The major implication of these findings is that policy makers must place greater emphasis on addressing the economic and social development of rural areas in Nigeria if the harmful practice of FGM is to be reduced.

Keywords FGM · Female genital mutilation · Female circumcision · Men's view · Nigeria · Sociodemographic factors

Introduction

Female genital mutilation (FGM), also known as female circumcision, excision, surgery and genital cutting/mutilation, involves partial or total cutting of the external female genitalia, or other injuries inflicted on the genital organs for non-medical purposes (World Health Organization [WHO] 2018). The practice is recognised by the WHO as a violation of women's fundamental human rights and as a form of violence against children (WHO 2018). It is one of the

most dangerous traditions still practised around the world, particularly, in Nigeria and other African countries, regardless of the negative health consequences associated with it. The WHO (2018) estimates that approximately 3 million girls are at risk of FGM each year in countries where the practice is most prevalent. The United Nations Children's Fund [UNICEF] estimated that 200 million women and girls had undergone FGM across Africa, Asia, and the Middle East (UNICEF and Geeta 2013; UNICEF 2016). The public health burden of FGM is prevalent in Africa, especially Nigeria, Somalia, Ethiopia, Gambia, Egypt, Mali, Sudan, and northern Ghana, where the practice is an ancient tradition among many rural communities and ethnic groups.

According to Ashimi and Amole (2015), Nigeria has the highest total number of circumcised women and girls worldwide. For instance, an estimated 19.9 million girls and women have experienced FGM in Nigeria (UNICEF 2016), and 82% have been subjected to the practice before the age of five (National Population Commission [NPC] and ICF

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International 2014). In 2014, the population of Nigeria was estimated at 178 million, consisting of 90,011,884 males and 88,593,434 females (Population Reference Bureau 2014; National Bureau of Statistics [NBS] 2016). The 2013 Nigeria Demographic and Health Survey reported that 25% of women and girls in Nigeria had undergone FGM, with the Igbo ethnic groups reporting a higher percentage of 45% (NPC and ICF International 2014). This indicates a population of 22,148,358 females who have experienced FGM in Nigeria. FGM has been banned in some states in Nigeria since 1999 and, with increased campaigns against the practice and awareness of its health complications, the Violence Against Persons (Prohibition) (VAPP) Act 2015 was introduced in 2015 by the then President Goodluck Jonathan (Ajite et al. 2016) making it the first national law to prohibit the tradition in Nigeria (Violence Against Persons (Prohibition) (VAPP) Act 2015).

The WHO (2018) classified FGM into four typologies which depend on the degree and severity of the injury: (1) Type 1 or clitoridectomy is the partial or total removal of the clitoris with or without the prepuce, (2) Type 2 or excision is the partial or total removal of the clitoris, the prepuce and the labia minora, with or without the removal of the labia majora, (3) Type 3 or infibulation is the cutting of the clitoris, labia minora, or the labia majora and narrowing of the vaginal opening — a very small opening remains to allow for urine flow and menstruation, and (4) Type 4 is all harmful operations to the female genital organ for non-medical reasons such as vaginal piercing, pricking, incising, scraping, and cauterizing. The type of FGM practised in Nigeria varies by ethnic group and geographical location. For instance, more women in the Fulani and Hausa ethnic groups and those in the North West zone practise scraping of the tissue surrounding the vaginal orifice (Type 4) than those in other ethnic groups (NPC and ICF International 2014).

Although the tradition is principally performed on girls aged from 3–8 days after birth to 2 months after delivery (Garba et al. 2012), it is also performed on older girls and adult women aged 15–49 years. In Africa and other developing countries, FGM is frequently implemented without anaesthetic and in unhygienic conditions by untrained traditional circumcisers, usually barbers, birth attendants, and native nurses or midwives (Garba et al. 2012; Reisel and Creighton 2015). The health consequences associated with FGM cannot be overemphasised: all types of injuries to this body site have the potential to cause serious physical damage such as traumatic bleeding, wound infection, and septicaemia (Amin et al. 2013). Reproductive repercussions can include caesarean section and instrumental delivery due to prolonged obstructed labour, and damage to other adjacent organs (Anis et al. 2012; Berg and Underland 2013; Frega et al. 2013; Reisel and Creighton 2015). Psychological consequences such as post-traumatic stress disorder,

dyspareunia, anxiety, and depression (Jeremiah et al. 2014) and even death have been reported in severe cases (WHO 2018). Despite these serious health consequences and, particularly, that men may play an active role by encouraging FGM continuation or a passive role by preferring to marry women who have undergone the surgery (Varol et al. 2014), men's views about the continuation of the practice are not widely known.

Studies have explored women's and children's knowledge and perceptions of the practice of FGM (Ahanonu and Victor 2014; Ashimi et al. 2015; Ajite et al. 2016), and those of male adolescents in Nigeria (Adeniran et al. 2015); however, only a few studies have explored the views of adult men about the tradition (Catania et al. 2016). For example, Johnson-Agbakwu et al. (2014) conducted a qualitative study among 40 Somali men and reported that all but one participant voiced their disagreement with FGM. However, Johnson-Agbakwu et al. (2014) employed a purposive sampling technique to recruit participants and, as such, it is argued that the findings from the study can be limited to the study participants. Furthermore, in a qualitative peer research study conducted among 130 men and women in the United Kingdom (UK), Hemmings (2011) reported that because FGM is not openly discussed in practising communities, limitations exist in the extent to which participants could describe men's views of the practice. Similarly, Varol et al. (2014) reported that much is still unknown about men's perceptions of FGM, so understanding this might bring important elements to appreciate the context in which the practice occurs and to inform effective ways of involving men in preventive programmes. Furthermore, Varol et al. (2015, p. 2) state that "very limited research exists in regard to men's influence on the FGM decision-making process". Evidence in the literature therefore shows a gap in knowledge that this study aimed to address.

Theoretical perspective

Modernisation theory can explain why personal values, attitudes, and behaviours change as a result of exposure to social progress and, from a global perspective, how the transition from traditional practices to Western lifestyles can be accompanied by both challenges to and changes in personal values, attitudes, and behaviours (Boyle et al. 2002). In the case of FGM, links have been evidenced between the persistence of the tradition and poor economic development (Boyle et al. 2002). In essence, modernisation theory, in relation to views and attitudes towards FGM, suggests that wealthy and highly educated individuals are more likely to want to end FGM than their poor and uneducated counterparts (Van Rossem et al. 2015). Views of and behaviours towards FGM and other harmful traditional practices can positively change as individuals embrace a modern lifestyle

and the new-found knowledge it can bring. According to Van Rossem et al. (2015), individuals with little or no socioeconomic development will perceive they have no control over their natural environment and therefore will be less likely to make positive changes towards the abandonment of harmful traditional practices.

For instance, findings from a study conducted in Burkina Faso demonstrate this theoretical perspective. Novak (2016) revealed that educated women are 30% more likely to oppose FGM than uneducated women. Similarly, findings from a study that analysed data from 13 West African countries reported that individual characteristics (age, education, and marital status) and household-level factors (radio, electricity, and television) contribute largely towards the persistence of FGM among women aged 15 to 49 (Bellemare et al. 2015). Marital status, for example, is pertinent to modernisation theory as it is argued that under certain social conditions and, particularly, among minority groups, familism (which refers to a social structure where family values and needs are more important and take priority over that of the individual members) can facilitate economic growth (Margavio and Mann 1989). In recent years, Nigeria has experienced some progress in socioeconomic terms which is driven mainly by telecommunications (World Bank Group 2019). Thus, the use of social media as a means of interpersonal and social interaction in Nigeria has increased. Television and radio, for example, are modern communication channels which allow people to connect with others from any part of the world, and by educating, informing, and entertaining, they have the capacity of changing the views of their audience (Ezeah et al. 2013). The present study therefore applied modernisation theory to investigate whether some aspects of human characteristics such as socioeconomic status, religion, age, education, occupation, marital status, and ownership of television and/or radio are associated with men's views of FGM continuation in Nigeria.

Factors associated with FGM

While FGM has been identified among females in all age groups, educational backgrounds, religious groups, and social classes, girls and women with certain sociodemographic characteristics may be more at risk from the practice (Berg and Denison 2013), for instance, uneducated women (Novak 2016). Similarly, men from specific sociodemographic backgrounds have been found to be more likely to favour FGM, for example older and uneducated men (Fahmy et al. 2010; Kaplan et al. 2013; NPC and ICF International 2014; Varol et al. 2015; Catania et al. 2016). Additionally, men in professional occupations, for example doctors and nurses, would prefer FGM to end (Ibrahim et al. 2013), presumably because they have knowledge of its health consequences. The use of technologies such as

the internet and smartphones can bring tremendous positive change in health behaviour and practice (Elaheebocus et al. 2018). Accordingly, research evidence demonstrates that men with access to media were 1.6 times more likely to favour the discontinuation of FGM (Sagna 2014). Furthermore, recent analysis of data from seven African countries (Egypt, Guinea, Kenya, Mali, Niger, Senegal, and Sierra Leone) reported that exposure to social media such as newspaper, magazines, radio, or television changes girls' positive attitudes in favour of FGM discontinuation (Dalal et al. 2018). Findings from these studies further align with modernization theory and demonstrate the importance of social development in changing views.

However, other studies have argued that no significant relationship exists between sociodemographic characteristics and men's views of FGM. For example, age, education, and marital status were not found to be significant factors associated with men's views of FGM (Gele et al. 2013; Ouldzeidoune et al. 2013). This demonstrates that there is no clear picture of the profile of men who are at risk of supporting the tradition. These inconsistencies in previous research indicate that further research is needed on the factors associated with men's views of FGM. Importantly, further research is needed to investigate the relationship between men's opinions of FGM continuation and their sociodemographic factors, in order to identify those significant variables to focus on when planning educational and health intervention programmes. Relying on women and girls alone for their views and experiences of FGM results in a scarcity of evidence of gender differences and contextual factors perpetuating FGM in countries where it is still practised (Abdulcadir et al. 2015). Berg and Denison (2013) conducted a systematic review on factors perpetuating FGM and reported that no studies have investigated only men's perspectives of FGM in countries where the tradition is practised. Therefore, very little is known about men's views of FGM continuation in communities where it is prevalent.

To bridge this gap and increase existing knowledge, the study reported here aimed to assess men's views of the continuing practice of FGM in a rural community in Isuikwuato Local Government Area, which is located in the northern part of Abia State in Nigeria (Chigbu 2013). Nigeria is a country in West Africa bordering the Gulf of Guinea on the Atlantic coast between Benin and Cameroon (Ajite et al. 2016) and, as previously stated, Nigeria has the highest total number of circumcised women and girls worldwide, so is a significant area for further research. To design and implement an effective programme targeted towards ending FGM in Nigeria, as well as contribute toward this field of research, it is vital that men's views of the practice are understood. Thus, this study aimed to:

1. Survey men's views of FGM continuation in Abia State, Nigeria; and

2. Analyse the factors associated with men's views of FGM continuation.

Hypotheses

Based on the findings of previous literature (Fahmy et al. 2010; Kaplan et al. 2013; Sagna 2014; Catania et al. 2016), it was hypothesised that:

- *Hypothesis: unemployed, single, uneducated older men who do not own a television and/or a radio are more likely to support the continuation of FGM than are younger, educated, employed married men who own a television and/or a radio.*

Methods

Study design

The full research project adopted a mixed-methods study which included a cross-sectional survey with subsequent in-depth interviews with Nigerian Igbo men regarding their views, attitudes, and knowledge on FGM. This paper reports on the survey of men's views of FGM continuation only, and the interview findings will be reported elsewhere.

Research participants

The sample of participants included 215 Nigerian Igbo men aged 18 years and above who are natives of the study community (Uturu) and at the time of data collection (August - September 2017) were living in the study setting. This ideally constitutes the population of adult men from the village, given that the legal age for consent in Nigeria is 18 years (Folayan et al. 2015). Visitors and non-natives of the study setting were excluded from the study.

Procedure and ethical considerations

Ethical approval from the University of Wolverhampton Faculty of Education, Health and Wellbeing Ethics Committee was gained prior to seeking consent from the Isuikwuato Local Government Chairperson and the community traditional ruler. Once consent was gained, 250 individuals were recruited through convenience sampling, informed consent was obtained, and those who could read and understand English completed a self-administered questionnaire ($n = 176$). In order to ensure participants who did not read or write English could understand the questions, the questionnaire was translated into the native language of participants (Igbo) and administered by the bi-lingual researcher ($n = 74$). A breakdown of the response rate indicates that slightly

more respondents completed the English version than the Igbo version (86.9% vs 83.7% response rate respectively). A pilot study had previously been completed with eight men in a neighbouring village (Amagu, Isiagwu in Imo state), findings from which were not included in the main results as the study sample were from a different community; otherwise the questionnaires were found to be acceptable. After data collection was completed, a total of 215 completed questionnaires were returned, a very high response rate of 86%.

Measures

Men's views of FGM were assessed by adapting questions from the knowledge, attitudes and perceptions [KAP] questionnaire developed for men by Kaplan (1998), a medical anthropologist researcher with a background in ethnographic studies conducted in the Gambia. With permission from the author, the KAP questionnaire was slightly modified to suit the present study. Given that the KAP questionnaire does not ask questions that address some of the research questions, additional questions were purposely selected from the Demographic and Health Survey [DHS] questionnaire for men (The Demographic and Health Survey Program 2015). Furthermore, questions relating to the age of circumcision for girls, the presence of circumcisers, and male circumcision in the KAP questionnaire were not included in the instrument used for this study.

The adapted questionnaire consisted of 27 closed-ended questions that was comprised of both multiple-choice and dichotomous questions with single answers. Questions relating to participants' age group, marital status, occupation, academic achievement, religious background, and household possessions were asked to obtain participants' sociodemographic data. Sociodemographic questions from the DHS module questionnaire included for example: 'Are you currently married or living together with a woman as if married?' Expected responses were categorised as "yes, currently married", "yes currently living with a woman" and "no, not in union"; and 'Have you ever attended school?', with expected responses categorised as "yes" and "no". The dependent variable was created by asking whether participants thought FGM should be continued or discontinued. Expected responses included: "Continue", "Discontinue" and "Do not know". Previous studies have evidenced construct validity for the DHS and KAP questionnaires respectively (Gele et al. 2013; Kaplan et al. 2013). A copy of the questionnaire used for the current study is available on request to the corresponding author.

Analytic strategy

Once collected, data were entered into the Statistical Package for Social Science (SPSS) Version 24 (IBM Corporation

2016) for screening and analysis. There were no missing data, and frequencies, and descriptive statistics were conducted for all variables. In order to observe the assumptions associated with Pearson's chi-squared test, categories with low frequencies within variables were combined (Field 2018), and the response to the dependent variable 'Do not know', noted by only four respondents, was removed for chi-squared and regression analysis, resulting in a sample size of 211. For example, the variable 'occupation' relating to student, farmer, health and education professionals, civil service, and others (trader and driver) was collapsed into three categories: student, farmer/others, health/education professional/civil service. The groups 'farmer' and 'others' were combined as they were identified as informal employment (International Labour Office 2012). Similarly, the variable 'currently married or living with a woman' which had three categories (currently married, currently living with a woman and not in union) was collapsed into two categories namely: 'currently married/currently living with a woman' and 'not in union', and then labelled 'marital status'.

Principal component analysis [PCA] was employed mainly for the construction of wealth index components used to classify participants into three socioeconomic groups — rich, middle and poor — using data on ownership of certain household assets (Vyas and Kumaranayake 2006), including car, motorcycle, bicycle, radio, television, refrigerator, and source of electricity. Wealth index components were constructed following the steps described elsewhere (World Food Programme [WFP] 2017, pp. 6–21). Pearson's chi-squared and Fisher's exact tests, when more than 20% of expected cell counts were below five (Field 2018), were used to examine the difference in men's views of FGM continuation by sociodemographic characteristic. A p -value < .05 was taken as significant. Binary logistic regression analysis was conducted to examine the sociodemographic factors associated with favouring the practice of FGM continuation/discontinuation by a 95% confidence interval (CI). Logistic regression used the outcome variable defined as views of FGM which represented participants' opinions on whether FGM should continue or be discontinued. The outcome variable was recoded such that 1 = continued and 0 = discontinued. Post hoc power analysis was carried out using G*Power version 3.1.9.2 based on alpha size (0.05), effect size (0.50), and sample size ($n = 211$).

Results

Sample sociodemographic characteristics

Table 1 shows the participants' profile. The sample consisted of 215 males whose age ranged from 18 years and above, weighted mean age being 42 years. The majority of

Table 1 Sociodemographic characteristics of participants ($N = 215$)

Characteristics	Number (n)	Sample (%)
Age in 3 year groups		
18–27 years	41	19.1
28–47 years	104	48.4
48 and above	70	32.6
Marital status		
Currently married	98	45.6
Currently living with a woman as if married	23	10.7
Widowed	19	8.8
Divorced	2	0.9
Separated	2	0.9
Never married	71	33.0
Educational background		
No education	21	9.8
Primary education	41	19.1
Secondary education	62	28.8
Higher education	91	42.3
Occupation		
Students	32	14.9
Farmers	63	29.3
Health professionals	7	3.3
Education professionals	18	8.4
Civil service	33	15.3
Other (traders and drivers)	62	28.8
Religion		
Muslim	3	1.4
Christian	198	92.1
Traditional	11	5.1
Others (non-religious)	3	1.4
Mass media		
No radio or television	28	13.0
Own either radio or television	60	27.9
Own both radio and television	127	59.1

participants were aged between 28 and 47 years (48.4%). Older men constituted 32.6% of the sample while younger men constituted 19.1%. Approximately 46% of participants described themselves as currently married, 10.7% reported currently living with a woman as if married, and 43.7% as not being in a union. Nearly half of the participants had received higher education (42.3%) while only 9.8% had no educational background. Almost all participants identified as Christians (92.1%), while the remaining identified as traditionalist or belonging to other religious groups (5.1% and 1.4% respectively). This indicates that the majority of the respondents were aged 28–47 years, married, educated, worked as farmers, and being Christians. In terms of education and employment status, this is comparable to the national population demographics (The World Bank 2018).

The Nigerian population demographic included, for example, 5.7% unemployed males, 23% with informal employment and predominantly (81.6%) literate males aged 15 years and above (The World Bank 2018). More than half of the sample reported owning both a radio and a television (59.1%), while just over a quarter owned either a television or a radio (27.9%), and only 13% reported owning neither a radio nor a television.

Men's views regarding the continuation of FGM

Participants' views concerning the continuation of FGM are presented in Table 2. It is important to note that the majority of the sample reported that FGM should be discontinued (63.7%). However, just over a third of participants (34.4%) reported that the practice should carry on, while only 1.9% said that they did not know.

Sociodemographic differences in men's views on the continuation of FGM

The difference in views regarding the continuation of FGM by sociodemographic characteristics is presented in Table 3. Pearson chi-squared test revealed a statistically significant difference between men's views of FGM continuation and age, occupation, educational attainment, socioeconomic group, ownership of a television and/or a radio, and religion ($p < .001$). However, no significant differences were found in men's views of FGM based on marital status ($p = .77$) using Fisher's exact test.

Post hoc tests as reported in Table 3 revealed that significantly more participants in the older age group (48 years and above), with primary education or no education, and in the 'farmer/others' category, reported being more in favour of the continuation of FGM than its cessation. Similarly, those belonging to the poor socioeconomic group, not owning a television and/or a radio and from 'other religious groups' (Muslim, traditionalist, and non-religious) reported being in favour of the continuation of FGM. The

odds of supporting the continuation of FGM rather than its discontinuation are 31.7 times higher in the 'other religious group'. With regard to those with higher education, professional occupation (health/education/civil servants), and who had ownership of both a television and a radio, significantly fewer participants reported being in favour of FGM continuation.

Sociodemographic factors associated with men's views of FGM

As shown in Table 4, binary logistic regression results revealed that participants' age group demonstrated significant predictability whether they thought FGM should continue or not. The value of the odds ratio indicates that those 48 years and over were 5.24 times more likely to favour FGM continuation than those 18 to 27 years. Survey respondents having only primary education were 5.33 times more likely to think FGM should continue than those with no education. Although not significant, the value of the odds ratio indicates that respondents with secondary and higher education were less likely to favour FGM continuation. With regards to occupation, the odds ratio indicates that for a unit change in respondents' occupation, those in the farmer/others category were 3.28 times more likely to think FGM should continue than those within the health/education and civil service category. The odds ratio (0.07) presented in Table 4 indicates that for a unit change in ownership of either a television or a radio, the odds of favouring FGM continuation decreased compared to those who do not own a television and/or a radio. Similarly, for a unit change in the ownership of both television and radio, the odds (0.07) of participants favouring FGM continuation decreased compared to those who do not own a television and/or a radio.

Binary logistic regression results also revealed that religion demonstrated significant predictability of whether participants thought FGM should continue or discontinue. The odds ratio value (0.04) in Table 4 shows that survey respondents belonging to the Christianity group were less likely to favour FGM continuation than those in the other religious group. Importantly, these findings demonstrate that survey respondents who were older, had only primary education and belonged to the 'farmer/others' occupational category were more likely to think FGM should continue than those who had ownership of a television and/or a radio and belonged to the Christian faith. Data analysis also revealed that marital status such as 'currently married/living with a woman' was not a significant factor influencing men's views of FGM continuance. Similarly, participants' socioeconomic groups did not demonstrate

Table 2 Men's views of female genital mutilation (FGM) ($N = 215$)

Variable	Frequency (n)	Percentage (%)
Do you think FC should be continued or discontinued?		
Continued	74	34.4
Discontinued	137	63.7
Do not know	4	1.9
Total	215	100

female circumcision (FC) is the term used to describe the practice in the study setting.

Table 3 Difference in men's views of the continuation of female genital mutilation (FGM) and sociodemographic characteristics ($N = 211$)

Variables	Total % (n)	Think FGM should be discontinued % (n)	Think FGM should be continued % (n)	χ^2 or FE
Age group				$\chi^2(2) = 22.47, p < .001$, Cramer's $V = .32^{***}$
18–27 years	19.0 (40)	22.6% (31)	12.2% (9)	
28–47 years	47.9 (101)	55.5% (76)	33.8% (25)	
48 years and above	33.2 (70)	21.9% (30) *	54.1% (40) **	
Educational attainment				$\chi^2(3) = 40.90, p < .001$, Cramer's $V = .44^{***}$
No education	10.0 (21)	5.1 (7)	18.9 (14) *	
Primary education	19.0 (40)	10.2 (14) *	35.1 (26) **	
Secondary education	29.4 (62)	29.9 (41)	28.4 (21)	
Higher education	41.7 (88)	54.7 (75) *	17.6 (13) **	
Occupation				$\chi^2(2) = 30.08, p < .001$, Cramer's $V = .37^{***}$
Students	14.7 (31)	18.2 (25)	8.1 (6)	
Farmers/others (i.e. Traders and drivers)	58.8 (124)	45.3 (62) *	83.8 (62) **	
Health/education/civil service professionals	26.5 (56)	36.5 (50) *	8.1 (6) **	
Marital status				$p = .77$
Not in union	43.6 (92)	44.5 (61)	41.9 (31)	
Currently married/living with a woman	56.4 (119)	55.5 (76)	58.1 (43)	
Socioeconomic group				$\chi^2(2) = 21.54, P < .001$, Cramer's $V = .32^{***}$
Poor	24.6 (52)	14.6 (20) *	43.2 (32) ***	
Middle	45.5 (96)	50.4 (69)	36.5 (27)	
Rich	29.9 (63)	35.0 (48)	20.3 (15)	
Mass media				$\chi^2(2) = 33.69, P < .001$, Cramer's $V = .40^{***}$
No radio or television	13.3 (28)	3.6 (5) **	31.1 (23) ***	
Own either radio or television	28.0 (59)	27.7 (38)	28.4 (21)	
Own both radio and television	58.8 (124)	68.6 (94)	40.5 (30) *	
Religion				$\chi^2(1) = 24.07, P < .001$, Cramer's $V = .33^{***}$
Others (Muslim, traditionalist, non-religious)	7.1 (15)	0.7 (1) **	18.9 (14) ***	
Christians	92.9 (196)	99.3 (136)	81.1 (60)	

*Significant at the $p < .05$ level (2-tailed); ** $p < .01$ level (2-tailed); *** $p < .001$ level (2-tailed).

significant predictability of whether participants thought FGM should continue or be discontinued.

Post hoc power analysis

Post hoc power analysis was carried out using G*Power version 3.1.9.2 based on alpha size (0.05), effect size (0.50), and sample size of 211. Post hoc analysis revealed that the achieved power for the significant independent sociodemographic predictors of favouring the continuation of FGM were the age group 48 and above (100%), primary education category (100%), farmer/others category (100%), and for favouring its discontinuation were ownership of either a television or a radio category (100%), ownership of both

television and radio category (100%), and having a Christian faith category (100%), well above the accepted level of power of at least 80% (Cohen 1988). This suggested that the sample size of 211 was appropriate for achieving a real effect in the present study. The post hoc power achieved for the non-significant predictors ranged from 5% to 100%.

Discussion

Consistent with literature (Johnson-Agbakwu et al. 2014; National Population Commission [Nigeria], ICF International 2014; Adeniran et al. 2015), the results from this study suggest that fewer Igbo men thought FGM should be

Table 4 Binary logistic regression analysis for the association of men's views of FGM continuation/discontinuation and sociodemographic characteristics ($N = 211$)

Variables	B (SE)	Wald	P-value	Odds ratio Exp(B)	95% CI for odds ratio	
					Upper	Lower
Individual factors						
Age in 3 year groups		4.04	.13			
18-27 (ref)						
28-47	1.15 (0.74)	2.41	.12	3.17	0.74	13.56
48 and above	1.66 (0.82) *	4.04	.04	5.24	1.04	26.38
Highest education		9.70	.02			
No education (ref)						
Primary	1.67 (0.79) *	4.48	.03	5.33	1.13	25.10
Secondary	0.93 (0.89)	1.09	.29	2.54	0.44	14.63
Higher	-0.04 (0.94)	0.00	.96	0.96	0.15	6.00
Occupation		7.09	.02			
Health/education and civil service (ref)						
Student	-0.13 (0.93)	0.02	.89	0.88	0.14	5.47
Farmers/others (traders and drivers)	1.19 (0.55) *	4.68	.03	3.28	1.12	9.61
Family factors						
Marital status		1.33	.24			
Not in union (ref)						
Currently married/ living with a woman	-0.57 (0.49)	1.33	.24	0.57	0.22	1.49
Community factors						
Wealth index		0.00	.99			
Rich (ref)						
Poor	0.02 (0.83)	0.00	.98	1.02	0.20	5.15
Middle class	-0.00 (0.52)	0.00	.99	1.00	0.36	2.74
Mass media		9.57	.00			
No radio or television (ref)						
Own either television or radio	-2.68 (0.87) **	9.57	.00	0.07	0.01	0.38
Own both television and radio	-2.73 (1.05) **	6.73	.00	0.07	0.01	0.51
Religion		7.98	.00			
Muslim (ref)						
Christian	-3.28 (1.16) *	7.98	.00	0.04	0.00	0.37
Constant	2.57 (1.84)	1.95	.16	13.06		

$R^2 = .33$ (Hosmer–Lemeshow), 0.34 (Cox–Snell), 0.48 (Nagelkerke), * $p < .01$, ** $p < .001$.

continued compared to those who thought it should cease. This reflects a decline in support for the practice amongst Nigerian men generally, and specifically indicates that support for FGM continuation is low among Igbo men. The implication of this is that men can play an active role in the eradication of FGM and should be empowered to achieve this through the provision of health education, and community economic and social development. Findings from this study also evidence the influence of some aspects of human differences such as age, educational achievement, and employment status as significant factors associated with men's views of FGM continuation. Consistent with previous studies (Fahmy et al. 2010; Kaplan et al. 2013), the findings show that unemployed older men and those with a poor educational background were more likely to favour FGM

continuation (at least in the sample reported here). This reflects the assertion that the younger and educated generations are more likely to abandon the practice than their older and uneducated counterparts. This supports modernisation theory, which explains the impact of education and socialisation on behavioural and attitudinal change (Boyle et al. 2002). A plausible explanation for this is that younger men may be aware of the health consequences relating to FGM through education, mass media, and other information technology (Johnson-Agbakwu et al. 2014). In addition, older men may not be targeted for information dissemination relating to FGM. Seminars and workshops that focus on harmful cultural practices are mainly provided at community schools and institutions where younger people are more likely to attend compared to older generations.

However, results from the study reported here do not confirm literature which states that age is not a significant risk factor associated with men's view of FGM (Gele et al. 2013; Ouldzeidoune et al. 2013). The discrepancy between the findings from the current study and that reported in previous studies may be due to the age difference of participants included in the samples. For instance, in Ouldzeidoune et al.'s (2013) study, the majority of male participants were from a younger age group (15–19 years), whereas in the present study the majority of participants were older men (28–47 years).

Comparable to results from a previous study conducted in Nigeria (Ibrahim et al. 2013), participants belonging to the farmer/others category were more likely than those in professional employment to think FGM should continue. Unlike those who belong to the farmer/others occupational category, health and education professionals may have greater exposure to media messages, an international discourse that denounces FGM, and the opportunity to discuss with colleagues who have negative perspectives about the practice. This is an important finding that provides evidence for modernisation theory in explaining how changes in traditional practices can be driven by Western lifestyles, beliefs, and systems (Boyle et al. 2002). This implies that there is a need for the Government to place greater emphasis on addressing the economic and social development of rural areas in Nigeria. It also suggests the need for increasingly positive attitudes in support of programmes and campaigns for the elimination of FGM among farmers, traders, and those who engage in other informal employment in the study setting. This finding is, however, contradictory to that reported in Ouldzeidoune et al.'s (2013) research. The dissimilarity between these studies may be as a result of participants' occupation. For example, in the current study, participants were over-represented by farmers and those belonging to the 'other' category. The sample was also rural although educated, whereas in Ouldzeidoune et al.'s (2013) research, more than half of the participants were employed and lived in urban areas.

The overall assessment with regard to media and religion revealed some intriguing results. For instance, results from the regression analysis demonstrate that owning a television and/or a radio and having a Christian faith emerged as significant factors influencing men's support for the discontinuation of FGM. This is an interesting finding similar to that reported by Sagna (2014). A possible reason for this is that media can influence people in making major behavioural and attitudinal changes (Elaheebocus et al. 2018). This result also aligns with modernisation theory and emphasises the importance of mass media and religion in disseminating health information regarding harmful cultural practices such as FGM with the intention of dispelling myths and traditional norms that sustain the tradition.

It also reflects the impact of Western colonisation and missionaries on cultural and behavioural change, as proposed by modernisation theory. This is particularly important in rural communities where media coverage of health-related problems such as FGM, facilities, and information remain particularly poor (Sagna 2014). This demonstrates the importance of mass media and religion as powerful tools in the fight against FGM, and suggests that generalised access to media messages is one step toward the end of the practice.

Although results from this study revealed a significant relationship between religion and men's views of FGM continuance, and that Christian men are less likely to be in favour of FGM continuation, caution should be exercised when interpreting these results, as Christians were over-represented among the survey respondents. The relationship between religion and support for the discontinuation of FGM among men may be explained by the nature of the emergent non-orthodox Christian faiths that preach the abolishment of traditional African values and norms (Ibenwa 2014). This also reinforces the debates around religion and FGM, as it is not required by any religion but practised among members of all religious groups including Christians (Ashimi et al. 2015).

As reported in previous studies (Kaplan et al. 2013; National Population Commission [Nigeria], ICF International 2014; Sagna 2014), the results from the regression analysis demonstrate that marital status and socioeconomic status are not significant factors influencing men's views of FGM continuation. This is an important finding, indicating that men's marital and socioeconomic status does not influence their views about FGM. This finding is, however, perplexing given that it contradicts modernisation theory, which suggests that socioeconomic development influences the practice of FGM (Boyle et al. 2002). According to the 2013 National Demographic Health Survey, there is no distinct pattern of wealth among men with regard to their opinions of FGM continuation (National Population Commission [Nigeria], ICF International 2014). Additionally, individual wealth as measured in this study and social growth are separate concepts, which again are linked to modernisation theory. This suggests that views of FGM are more likely associated with social development than with individual wealth. This implies that individual wealth alone may not influence views of FGM and that intervention programmes should not be explicitly focused on married men or those from poor socioeconomic group, but on changing the views of all men. Furthermore, the results reported in the present study with regard to socioeconomic status may be due to the limited indicators used for calculating wealth index. Wealth index was calculated based on ownership of certain household and individual assets using PCA. Therefore, this suggests the need for future research

to investigate the relationship between men's views and socioeconomic status in rural settings, using additional socioeconomic indicators.

Strengths and limitations

A major strength of this study was the success in engaging 215 Igbo men to share their views on a sensitive topic that previously had not been addressed in a formalised way. This was achieved by seeking approval and support from the traditional ruler and ward leaders from the study setting, who helped facilitate delivery of the survey. Given the sensitive nature of the topic, data from this research has provided much-needed information on the sociodemographic factors influencing Nigerian Igbo men's views of FGM continuation. By conducting this research, silences around the tradition are broken, with a platform given to the rarely heard voices of Igbo men. The use of a questionnaire adapted from DHS (The DHS Program 2015) and KAP module questionnaires (Kaplan 1998) ensured validity of the findings. Although survey participants were not randomly selected, the sample size was relatively large.

However, this study is not without limitations, which are in relation to the timeframe of data collection and the generalisability of findings. Firstly, data were collected during a period of economic and national crisis, which may have impacted on participants' willingness to participate in the study, the length of time spent during data collection and, as such, the number of participants recruited. There were some rejected questionnaires (16%) because participation in the study did not involve a cash incentive. This resulted in a sample size of 215 survey participants. Therefore, findings can be explained as a snapshot at a single point in time and place. However, as previously stated, employing G*Power version 3.1.9.2 to calculate the power of the study with the sample size of 211 suggested that the sample size analysed was appropriate for achieving a real effect. Secondly, the use of a convenience sampling frame for participant recruitment may impact on the generalization of the study to other populations. Self-selection bias may also have led to overrepresentation of educated men and those who supported the discontinuation of FGM. Finally, the results were obtained by analysing cross-sectional data, therefore causality of observed relationships cannot be inferred.

Conclusion and recommendations

This study concludes that Igbo men's positive views of FGM continuation are low. Involving more Nigerian Igbo men in health education programmes and campaigns against FGM

would further facilitate this change. Unemployed older Igbo men who have education below secondary level and do not own a television and/or a radio are more likely to support FGM continuation than younger, educated working Igbo men who own a television and/or a radio. It is therefore important that Igbo men with similar profiles are targeted for strategic awareness and intervention programmes as well as empowered through the provision of economic resources and social development. There is also a need for increasingly positive attitudes in support of educational programmes and campaigns among men who are traditionalist or who belong to other religious groups in the study setting. Based on findings from the regression analysis, generalized access to mass media is also recommended, but this would be a decision for the Nigerian Government. Furthermore, involving men to serve as advocates and health educators for individuals, family, and at community level intervention programmes for the eradication of FGM, would provide a vehicle for conveying trust in a place of familiarity. In light of the findings from this study, further research is needed to investigate the social and cultural beliefs influencing men's views of FGM in both rural and urban areas. This will help uncover new concepts and provide an in-depth understanding of the cultural and social importance of FGM in relation to the context of practising communities. It will further contribute to the design of an appropriate multifaceted intervention programme that can be applicable to many communities.

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Availability of data and material Derived raw data supporting the findings of this study are available from the corresponding author [HN] on request.

Code availability (software application or custom code) Not applicable.

Declarations

Conflict of interests The author(s) have no relevant financial or potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Ethics approval Ethical approval was sought from the University of Wolverhampton Faculty of Education, Health, and Wellbeing Ethics committee prior to seeking consent from the Isuikwuato Local Government Chairperson and the community traditional ruler.

Consent to participate Informed consent was obtained from all individual participants included in the study.

Consent to publish Participants signed informed consent with regard to publishing their data.

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