

Health Consequences of Female Genital Mutilation: Mothers' Experiences and Awareness in Oyo State

Olufunmilayo Doyinsola AFONJA

Community Health Officers' Training Programme,
University College Hospital, Ibadan, Oyo State

Oyedunni Arulogun

Department of Health Promotion and Education,
College of Medicine, University of Ibadan, Oyo State

Abstract: This study examined health consequences of female genital mutilation: Mothers' experiences and awareness in Oyo State. The health belief model (HBM) served as the theoretical road map for the study. Cross sectional research design was employed. A mixed study involving both quantitative and qualitative research approaches was adopted. A sample size of 1143 mothers were selected using multi-stage sampling procedure. Two research questions and one hypothesis were raised to guide the study. Questionnaire titled: Experiences and Awareness of Health Consequences of Female Genital Mutilation Questionnaire (EAHCFGMQ, $\alpha = .865$) was used to collect data. Interview guide was also employed. Results showed that 54.2% have high level of experiences of the health consequences of FGM while 45.8% have low level of experiences of the health consequences of FGM. 53.0% have good level of awareness of health consequences of FGM while 47.0% have poor level of awareness of health consequences of FGM. There was a significant positive correlation between mothers' awareness of the health consequences of FGM and their experiences of the health consequences of FGM ($r = .705$, $P < 0.05$). It was concluded that mothers' level of awareness positively correlates with their experiences of FGM. It was recommended among others that mothers should be more enlightened on the health consequences of FGM and health care should be provided to those who have had negative experiences of FGM.

Keywords: Health consequences, Experiences, Awareness, Female Genital Mutilation.

Introduction

Female genital mutilation (FGM) which involves partial or total removal of the external female genitalia or injury to the female genital organs for cultural and non-therapeutic reasons is often seen as a grave violation of a female's human rights (Famuyiwa, 2017). FGM reflects longstanding gender inequality and is an extreme type of discrimination against women (Batyra et al., 2020). It includes violations of children's rights, as well as person's right to health, security, and physical integrity, and the right to be free of torture and cruel, inhuman, or degrading treatment, and the right to life where the procedure may result in death (Ateko & Petinrin, 2022). There are no known health benefits of FGM to women instead between 100 million and 140 million women, mothers, and girls are thought to be experiencing health consequences of female genital mutilation (Gbadebo et al., 2021; World Health Organisation, WHO, 2022).

All forms of FGM (Type I to IV) are associated with increased health risk in the short- and long-term. Short-term experiences of health risks of FGM among mothers include - severe pain, excessive bleeding (haemorrhage), shock, genital tissue swelling, infections, urination problems, impaired wound healing, death which could result from infections, and mental health problems (WHO, 2022). Long-term experiences of health risks of FGM (occurring at any time during life) include pain, chronic genital, reproductive and/or urinary tract infections, septicaemia and death. FGM also causes menstrual problems such as painful menstruation (dysmenorrhea), excessive scar tissue (keloids), increased risk of HIV (Human immunodeficiency virus) transmission, sexual health problems, scar formation and traumatic memories (Alege, 2020; Amodu et al., 2019; WHO, 2022). FGM is also associated with childbirth complications (obstetric complications) such as difficult and/or prolonged labour among women (WHO, 2022).

Studies and reports have shown that girls, women and/or mothers including those in Oyo state who have undergone FGM are more likely to experience post-traumatic stress disorder (PTSD), anxiety disorders, depression and somatic (physical) complaints (for example, aches and pains) with no organic cause (Alege, 2020; Famuyiwa, 2017; Klein et al., 2018; WHO, 2022). FGM also has serious implications for the sexual and reproductive health of girls and women and/or mothers including those in Oyo state (Famuyiwa, 2017). Mothers and girls living with FGM have experienced a harmful practice which will live with them for the rest of their lifetime. The traumatic experience of FGM increases the short- and long-term health risks to females (WHO, 2022). Women and/or mothers who have experienced FGM tend to develop psychological conditions which make them withdrawn and uncommunicative or distrustful. Other psychological effects are emotional distance, flashbacks, sleep disorders, social isolation and stigmatization which often stays with them for life (Alege, 2020; New Step for African Community, NESTAC, 2020).

Mothers' experience of FGM and its health consequences could be influenced by their awareness of the health consequences of FGM. In the context of this study, mothers' awareness has to do with their acquaintance and/or knowledge of the health consequences of FGM practice on themselves and other victims. Their awareness level of the health consequences of FGM could be good or poor. Mothers' awareness is good when they know a lot about the health consequences of FGM and poor when they have little or very little knowledge of the health consequences of FGM. A mother who does not know much about the FGM health consequences may allow herself, daughters and/or those close to her experience the procedure which could have damaging health consequences in the short and long run (Belda & Tololu, 2017).

Closely related studies examining experiences and awareness of the health consequences of FGM in Oyo state, Nigeria have yielded mixed findings, necessitating a comprehensive investigation into the nuanced dynamics at play. On one hand, a study revealed that mothers' reluctance in going ahead with FGM was due to their awareness of some of its negative health consequences in Ibadan, Nigeria (Ndikom et al., 2017). Famuyiwa (2017) showed that parents who do not have the knowledge of health consequences of FGM were found to be practicing it in Ibadan South East Local Government area of Oyo State. On another hand, a study showed that some girls who were aware of the complications of FGM still allowed themselves to undergo FGM in Southwest, Nigeria (Robinson et al., 2022). Hence, there was a pressing need to contribute to the existing literature by investigating the mothers' experiences and awareness of the health consequences of FGM in Oyo state, Nigeria.

Statement of the Problem

Female genital mutilation is a public health problem which results into serious health consequences experienced by mothers and women. These health consequences include severe pain, excessive bleeding, spread of infection and urinary problems, long-term infections, menstrual and sexual problems and psychological consequences. It has been observed that some mothers in Oyo state who have undergone the procedure experiences the health consequences of FGM (Famuyiwa, 2017). Could the mothers' awareness of the health consequences of FGM be

influencing their experience of the procedure? This is because FGM studies carried out in Oyo state have shown that high level of carrying out the procedure is associated with high illiteracy or low educational level among parents and women (Famuyiwa, 2017; Ndikom et al., 2017; Robinson et al., 2022). Furthermore, there are scanty researches on awareness and experiences of health consequences of FGM among mothers and the link between them in Oyo State. As a result, there was an urgent need to investigate the experiences and awareness of FGM health consequences among mothers, the relationship between the variables and also identify viable interventions to improving mothers' level of awareness and reducing the rate at which they experience FGM and its health consequences in Oyo State.

Aim and Objectives of the Study

The aim of this study was to investigate health consequences of female genital mutilation: Mothers' experiences and awareness in Oyo State.

The specific objectives were to:

1. Identify the mothers' experiences of the health consequences of Female Genital Mutilation in Oyo State.
2. Assess the level of mothers' awareness of the health consequences of Female Genital Mutilation in Oyo State.

Research Questions

- a) What are mothers' experiences of the health consequences of Female Genital Mutilation in Oyo State?
- b) What is the level of mothers' awareness of the health consequences of Female Genital Mutilation in Oyo State?

Hypothesis

H₀1: There will be no significant correlation between mothers' awareness and experiences of the health consequences of Female Genital Mutilation in Oyo State.

Significance of the Study

This study is significant in that it creates more awareness on the subject matter (health consequences of female genital mutilation: mothers' experiences and awareness in Oyo State). The findings of the study would be of immense benefit to mothers, prevalent FGM communities in Oyo state and researchers. The findings of the study would make mothers in the communities to be aware of the current state of their awareness of FGM health consequences and how it may be affecting their experiences of FGM. The FGM prevalent communities would have an environment with greater awareness of FGM and its health consequence. This would ensure that there is a drastic reduction of the FGM practice and experiences among the people in the communities which would invariably create a safer environment for females living within the communities. The findings could be a reference point to researchers who intend to carry out similar research in future.

Scope of the Study

The scope of this study covered health consequences of female genital mutilation: mothers' experiences and awareness in Oyo State. The 'variable scope' covered two variables (mothers' experiences of FGM health consequences and mothers' awareness of FGM health consequences). The geographical scope covered major communities in three (3) local government areas (LGAs) across the three senatorial districts of Oyo state, where FGM is still highly prevalent. These local governments are - Oyo West LGA in Oyo Central Senatorial District; Kajola LGA in Oyo North Senatorial District; and Ibadan North LGA in Oyo South Senatorial District. The population scope covered mothers within 18-50 years and above who have at least a daughter alive in the above local government areas in Oyo State.

Theoretical Review

This study was anchored on the “Health Belief Model (HBM)”.

Health Belief Model (HBM)

The HBM was originally developed in the 1950s by social psychologists working at the United States Public Health Service to explain why many people did not participate in public health programs such as TB or cervical cancer screening. The theory states that people’s perception or awareness or knowledge about the benefits and consequences of various health programs determined their participation in it or not (Hochbaum, 1958). The key components of the health belief model include perceived susceptibility, perceived benefits, perceived barriers, self-efficacy, and expectations (which are the product/sum of perceived benefits, barriers and self-efficacy), cues to action (Adeline et al., 2019).

Perceived Susceptibility (Risk): This has to do with the person’s awareness or knowledge of the personal risk or susceptibility of the object which prompts the person to adopt healthier behaviours. The greater the perceived risk, the greater the likelihood of engaging in behaviours to decrease the risk.

Perceived Benefits: This has to do with a person’s knowledge or opinion or awareness of the value or usefulness of a new behaviour in decreasing the risk of developing a disease. People tend to adopt healthier behaviours when they believe the new behaviour will decrease their chances of developing a disease.

Perceived Barrier: This has to do with an individual’s own evaluation of the obstacles in the way of him or her adopting a new behaviour. Of all the constructs, perceived barriers are the most significant in determining behaviour change. For a new behaviour to be adopted, a person needs to believe or perceive that the benefits of the new behaviour outweigh the consequences of continuing the old behaviour. This enables barriers to be overcome and the new behaviour to be adopted (Hochbaum, 1958; Adeline et al., 2019).

Self-Efficacy: This has to do with the belief in one’s own ability to do something⁵³. People generally do not try to do something new unless they think they can do it. If someone perceives or believes a new behaviour is useful (perceived benefit) but does not think he or she can do it (perceived barrier), chances are that it will not be tried (Bandura, 1997).

Action Cues: This suggests that behaviour is also influenced by cues to action. Cues to action are events, people, or things that move people to change their behaviour (Hochbaum, 1958; Adeline et al., 2019).

Conceptual Model

The conceptual model showed the hypothesised relationship between mothers’ awareness and experiences of the health consequences of Female Genital Mutilation in Oyo State.

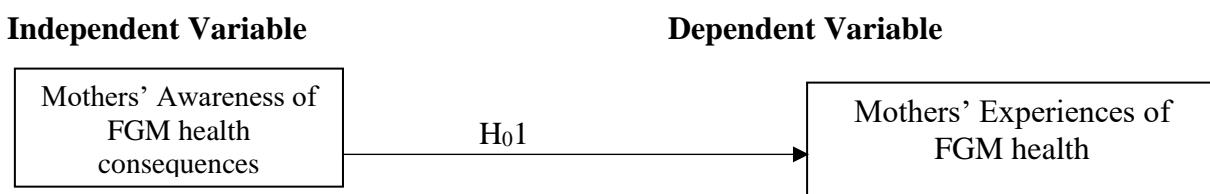


Figure 2.1: Conceptual Model (Source: Researcher, 2024)

Methodology

This study employed cross-sectional study design. The target areas comprised FGM prevalent communities in three local government areas (Oyo West, Kajola and Ibadan North) of Oyo State scattered across the three senatorial districts as shown in fig. 1.

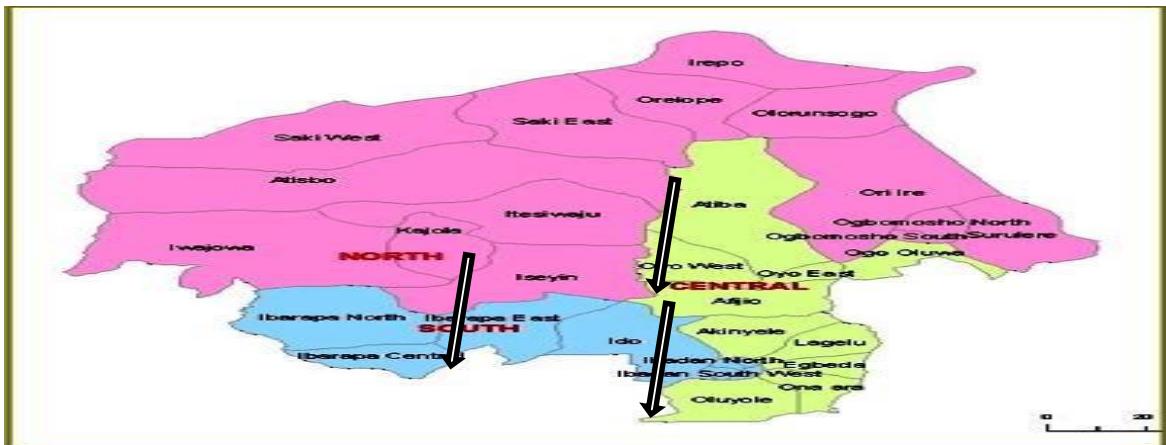


Figure 1: Map of Oyo State Showing the Study Areas (Source: Adagunodo et al., 2018)

One thousand, one hundred and forty three (1,143) mothers were selected from the three LGAs using Krejcie and Morgan sample size determination formula as shown below:

$$s = \frac{X^2 NP (1 - P)}{d^2 (N - 1) + X^2 P (1 - P)}$$

where s = required sample size,

X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level,

N = the population size

P = the population proportion (assumed to be .50 since this would provide the maximum sample size), and d = the degree of accuracy expressed as a proportion (.05).

Multi-stage sampling procedure involving purposive, stratified and simple random sampling techniques were used to select the respondents. A self-constructed questionnaire titled: “Experiences and Awareness of Health Consequences of Female Genital Mutilation Questionnaire (EAHCFGMQ)” with the rating scale of Yes = 3; No = 2; Undecided = 1; I Don’t Know = 0 was used to collect data. Interview guide was also used to collect qualitative data. The instruments were validated using face and content validity. The questionnaire was subjected to Cronbach’s alpha for estimation of its reliability by administering it once to one hundred and fifteen (115) mothers who were excluded from final study. A reliability value of .865 was obtained for EAHCFGMQ and this value was found to be reliable when subjected to psychometric test. The instrument was distributed personally by the researcher and her assistants to the sampled mothers. Bio data of mothers were analysed using frequency and percentage. Research questions were answered using frequency counts and percentages while hypothesis was tested using Pearson product moment correlation at 0.05 level of significance.

Results

Demographic Data Presentation

Table 1: Demographic Data of Mothers

Demographic Variables	Frequency (n)	Percentage (%)
Age Group (Years)		
Less than 20	74	6.5
20-24	116	10.1
25-29	127	11.1
30-34	119	10.4
35-39	243	21.3
40-44	170	14.9
45-49	145	12.7

50 and above	149	13.0
Religion		
Christianity	536	46.9
Islam	521	45.6
Traditional	86	7.5
Ethnicity		
Yoruba	911	79.7
Igbo	95	8.3
Hausa/Fulani	86	7.5
Others	51	4.5
Marital Status		
Married	1000	87.5
Separated	75	6.6
Co-habiting	43	3.8
Divorced	12	1.0
Widowed	13	1.1
Marital Type		
Monogamous	702	63.8
Polygamous	398	36.2
Total	1,143	100.0

Source: Fieldwork, 2024

Table 1 showed that majority of the mothers (21.3%) are within the age of 35-39 years, 46.9% are Christians by religion, 79.7% are Yoruba by ethnicity, and 87.5% are married while 63.8% are into monogamous marital type.

Table 1: Demographic Data of Mothers Cont'd

Demographic Variables	Frequency (n)	Percentage (%)
Family Structure		
Nuclear	748	65.4
Extended	395	34.6
Highest Level of Education		
No formal Education	62	5.4
Primary Education	166	14.5
Secondary Education	469	41.0
Tertiary Education	446	39.0
Occupation		
Farming	80	7.0
Skilled Labour	412	36.0
Unskilled Labour	168	14.7
Trading	416	36.4
Housewife	25	2.2
Unemployed	11	1.0
Students	31	2.7
Socio Economic Status (Income per month)		
1000-20,000	169	14.8
21,000-40,000	277	24.2
41,000-60,000	320	28.0
61,000-80,000	155	13.6
81,000-100,000	145	12.7

Above 100,000	77	6.7
Family Size		
1-5	720	63.0
6-10	400	35.0
11-15	19	1.7
16 and above	4	0.3
Number of Daughters Alive		
One daughter	286	25.0
Two daughters	479	41.9
Three daughters	227	19.9
Four daughters	104	9.1
Five daughters	28	2.4
Six daughters	11	1.0
Seven daughters	8	0.7
Age of Daughters		
0 month - 5 years	427	37.4
6-10 years	240	21.0
11-15 years	128	11.2
16-20 years	104	9.1
21-25 years	108	9.4
26-30 years	53	4.6

Source: Fieldwork, 2024

Table 1 also showed that majority of the mothers (65.4%) are into nuclear family structure, 41.0% have secondary education as their highest education, 36.4% are into trading as occupation, 28.0% earn within 41,000 to 60,000 monthly, 63.0% have a family size of within 1-5, and 41.9% have two daughters while 37.4% have daughters whose ages are within 0months to 5 years.

Answer to Research Questions

Research Question One: What are mothers' experiences of the health consequences of Female Genital Mutilation in Oyo State?

Table 2: Mothers' Experiences of Health Consequences of Female Genital Mutilation

Variable	Frequency (n)	Percentage (%)
FGM was performed on me		
Yes	769	67.3
No	215	18.8
I don't know	159	13.9
I was infected as a result of FGM procedure		
Yes	416	54.1
No	251	32.6
I don't know	102	13.3
I experienced menstrual problems such as painful menstruation (dysmenorrhea), irregular menses and difficulty in passing menstrual blood due to FGM		
Yes	320	41.6
No	268	34.9
I don't know	181	23.5
I experienced sexual health problems as a result of FGM		
Yes	495	64.4

No	201	26.1
I don't know	73	9.5
FGM was a painful experience for me		
Yes	490	63.7
No	95	12.4
I don't know	184	23.9
I experienced difficult and prolonged labour as a result of FGM		
Yes	396	51.5
No	252	32.8
I don't know	121	15.7
I experienced mental health problems such as post-traumatic stress disorder (PTSD), anxiety disorders, depression and/or somatic (physical) complaints (for example, aches and pains)		
Yes	384	49.9
No	265	34.5
I don't know	120	15.6

Source: Field Work, 2024

Table 2b: Overall Experiences of Mothers of Health Consequences of FGM

Variable	Frequency	Percentage (%)
High Level of Experiences	417	54.2
Low Level of Experiences	352	45.8

Source: Field Work, 2024

Table 2a showed that more than half (67.3%) of the mothers noted that FGM was performed on them. More than half (54.1%) experienced infection as a result of female genital mutilation. Most (41.6%) of them experienced menstrual problems. A major portion (64.4%) of the mothers experienced sexual health problems. Many (63.7%) noted that FGM was a painful experience for them while over half (51.5%) indicated that they experienced difficult and prolonged labour as a result of FGM. However, less than half of them (49.9%) indicated that they experienced mental health problems such as post-traumatic stress disorder (PTSD), anxiety disorders, depression and/or somatic (physical) complaints. Overall, 54.2% have high level of experiences of the health consequences of FGM while 45.8% have low level of experiences of the health consequences of FGM.

Interview guide questions were also distributed to the mothers in order to ascertain qualitative responses on their experiences of FGM. They were asked – If FGM was done on them? How did they feel when FGM was done on them? And did they and their daughter (s) experience health complication after FGM was performed on them? In terms of how they felt when the procedure was done on them, some of them said it was seriously painful. Some of them said it was normal which means they felt no pain. Few stated that they were small or still a baby when FGM may have been carried out on them so they cannot tell what or how they felt. Some of the mothers stated that they were not happy about it. Few of the mothers noted that it was painful and there were excessive bleeding/blood flow. Few responded that it was a normal experience for them while very few stated they do not know hence cannot tell their experience.

Some of the mothers stated that:

“They felt bad, struggle, sad, hurt, not comfortable, shameful, unsatisfied and unhappy”

With regards to their daughter (s)’ experience of FGM, some of the mothers stated that no, their daughter (s) did not experience health complications after FGM was performed on them. However, some of them stated that yes, their daughters did experience severe health

complications. Few of the mothers noted that they do not know if their daughters experience any form of complications on their health after the procedure was done on them.

Qualitatively, it can also be summarized that most of the mothers have undergone FGM practice and majority of them felt pain when it was performed on them. Most of them experienced excessive bleeding alongside the pain after undergoing the procedure. However, some of them did not experience health complications while some did.

Research Question Two: What is the level of mothers' awareness of the health consequences of Female Genital Mutilation in Oyo State?

Table 3a: Mothers' Awareness of Health Consequences of Female Genital Mutilation

Variable	Frequency (n)	Percentage (%)
FGM is dangerous		
Yes (correct)	627	54.9
No	214	18.7
I don't Know	170	14.9
Undecided	132	11.5
FGM can cause infertility		
Yes (correct)	539	47.2
No	258	22.6
I don't Know	125	10.9
Undecided	221	19.3
FGM results in severe complications		
Yes (correct)	622	54.4
No	226	19.8
I don't Know	109	9.5
Undecided	186	16.3
FGM exposes females to risks of infection		
Yes (correct)	681	59.6
No	206	18.0
I don't Know	136	11.9
Undecided	120	10.5
FGM can cause mental health problems such as post-traumatic stress disorder (PTSD), anxiety disorders, depression and/or somatic (physical) complaints (for example, aches and pains)		
Yes (correct)	657	57.5
No	206	18.0
I don't Know	152	13.3
Undecided	128	11.2
FGM can prolong labour during childbirth		
Yes (correct)	508	44.4
No	320	28.0
I don't Know	129	11.3
Undecided	186	16.3

Source: Field Work, 2024

Table 3b: Overall Awareness of Mothers of Health Consequences of FGM

Variable	Frequency	Percentage (%)
Good Level of Awareness	606	53.0
Poor Level of Awareness	537	47.0

Source: Field Work, 2024

Table 3a showed that more than half (54.9%) of the mothers are aware that FGM is dangerous. Most of them (47.2%) are aware that FGM can cause infertility. Many of them (54.4%) are also aware that FGM results in severe complications. Most of them (59.6%) are also aware that FGM exposes females to risks of infection. A major portion of them (57.5%) are aware that FGM can cause mental health problems such as post-traumatic stress disorder (PTSD), anxiety disorders, depression and/or somatic (physical) complaints. However, 44.4% of them are aware that FGM can prolong labour during childbirth. Overall, table 3b showed that 53.0% have good level of awareness of health consequences of FGM while 47.0% have poor level of awareness of health consequences of FGM.

Test of Hypothesis

H₀1: There will be no significant correlation between mothers' awareness and experiences of the health consequences of Female Genital Mutilation in Oyo State.

Table 4: Correlation Matrix

		Mothers' Experiences of Health Consequences of FGM
Mothers' Awareness of Health Consequences of FGM	Pearson Correlation	.705
	Sig. (2-tailed)	.040
	N	1143

*Correlation is significant at the 0.05 level (2-tailed)

Table 4 revealed a significant positive correlation between mothers' awareness of the health consequences of FGM and their experiences of the health consequences of FGM ($r = .705$, $P < 0.05$).

Discussion of Findings

This research work was carried out to investigate health consequences of female genital mutilation: mothers' experiences and awareness in Oyo State. Research question one revealed that more than half (67.3%) of the mothers noted that FGM was performed on them. More than half (54.1%) experienced infection as a result of female genital mutilation. Most (41.6%) of them experienced menstrual problems. A major portion (64.4%) of the mothers experienced sexual health problems. Many (63.7%) noted that FGM was a painful experience for them while over half (51.5%) indicated that they experienced difficult and prolonged labour as a result of FGM. However, less than half of them (49.9%) indicated that they experienced mental health problems. This result agreed with the study of Oladimeji (2019) who reported that majority of women (82%) in Osun State experienced painful female genital mutilation and bleeding for a number of days after the procedure was performed on them. The similarities in the result could be because they were carried out on women and within the same geo-political zone (Southwest) in Nigeria. This result is also in agreement with the findings of Aderibigbe et al. (2018) on "Practice of Female Genital Cutting amongst Adults in Ilorin Metropolis, North-Central Nigeria" which revealed that most experienced complication among respondents was severe bleeding (57.5%) while the females also experienced painful menstrual period, painful intercourse and urinary incontinence. However, these complications did not seem to bother them as it marks for them strict following of religious injunctions despite absence of link between FGM and Islam. The similarities observed in the result could be because both studies were carried out in Yoruba dominated regions of the country. However, the different states could be the cause for the variations observed in the results.

Research question two showed that more than half (54.9%) of the mothers are aware that FGM is dangerous. Most of them (47.2%) are aware that FGM can cause infertility. 54.4% are also aware that FGM results in severe complications. 59.6% are also aware that FGM exposes females to risks of infection. 57.5% are aware that FGM can cause mental health problems such as post-traumatic stress disorder (PTSD), anxiety disorders, depression and/or somatic (physical)

complaints. However, 44.4% of them are aware that FGM can prolong labour during childbirth. Overall, 53.0% have good level of awareness of health consequences of female genital mutilation while 47.0% have poor level of awareness of health consequences of female genital mutilation. This result agrees with that of a study carried out in Ekiti state which revealed that the mothers (56.7%) have “good knowledge” of the health consequences of FGM (Akinola et al., 2022). Furthermore, the result also corroborated with the findings of Famuyiwa (2017) and Oladimeji (2019) that majority of the women have good knowledge of the benefits and consequences of FGM in Oyo and Osun states respectively.

Hypothesis showed a significant positive correlation between mothers' awareness of the health consequences of FGM and their experiences of the health consequences of FGM. This result is consistent with that of a study which revealed significant influence of awareness (knowledge) and perception (attitude) on the practice of female genital mutilation (FGM) among woman of reproductive age in Akure South Local Government Area, Ondo State (Tomori, 2021). This result is in line with the work on “Assessment of Knowledge of Health Consequences and Practice of Female Genital Mutilation among Parents in Ibadan South East Local Government Area of Oyo State, Nigeria” which revealed a significant influence of parents' knowledge of FGM and their practice of FGM in the LGA in Oyo State (Famuyiwa, 2017).

Conclusion

It was concluded that mothers have good level of awareness of the health consequences of FGM and most of them experienced health consequences as a result of FGM and their awareness significantly correlates with their experiences of FGM.

Recommendations

1. Government, NGOs and Religious leaders should include campaign against the practice of FGM in their preaching during religious programmes.
2. Adequate information and education through various forms of communication medium should be provided for the communities in order to enlighten them on the need to eradicate Female Genital Mutilation.
3. Health care should be provided for those who are or have experienced health consequences of FGM.

References

1. Adagunodo, T. A., Sunmonu, L. A., Oladejo, O. P., Hammed, O. S., Oyeyemi, K. D., & Kayode, O. T. (2018). Site characterization of Ayetoro Housing Scheme, Oyo, Nigeria. IOP Conference Series Earth and Environmental Science, 173(1), 1-22. DOI:10.1088/1755-1315/173/1/012031.
2. Adeline, N., Ojiakor, I. C., & Onovo, J. C. (2019). Awareness, knowledge and perception of female genital mutilation and cutting (FGM/C) radio campaign and practice among women in Imo State, Archives of Current Research International, 16(4), 1-11. DOI:10.9734/aci/2019/v16i430095
3. Aderibigbe, S. A., Alatishe-Muhammad, B. W., Ameen, H. A., Salaudeen, A. G., Saka, M. J., Uthman, M. M. B., Bolarinwa, O. A., Akande, T. M., & Raji, H. O. (2018). Practice of female genital cutting amongst adults in Ilorin Metropolis, North-Central Nigeria. *The Tropical Journal of Health Sciences*, 25(1), 1-12. eISSN: 1117-4153
4. Akinola, F. V., Ogunlade, T. V., Nasiru, H. K., & Nasiru, M. O. (2022). Knowledge and attitude of female genital mutilation among mothers living in Afaa Community, Ekiti State. *Journal of Advanced Education and Sciences*, 2(4), 116-123. ISSN: 2583-2360
5. Alege, M. A. (2020). Impacts of communication strategies in combating the practice of female genital mutilation (fgm) and its multiplier effects on women. *Sapientia Foundation*

6. Amodu, M., Bolori, M., Kuchichi, A., Ngoshe, I., & Bukar, F. (2019). Female Genital Mutilation in Northeastern Nigeria, *Open Access Library Journal*, 6(11), 1-10. doi: 10.4236/oalib.1105827.
7. Ateko, B. C., & Petinrin, J. O. (2022). The perspective of Women on Female Genital Mutilation in Osun State, South West Nigeria. *International Journal of Advances in Engineering and Management (IJAEM)*, 4(6), 2476-2482. ISSN: 2395-5252
8. Bandura, A. (1997). Self-Efficacy. New York, NY: W. H. Freeman and Company. <https://doi.org/10.4278/0890-1171-12.1.8>.
9. Batyra, E., Coast, E., Wilson, B., & Cetorelli, V. (2020). The socioeconomic dynamics of trends in female genital mutilation/cutting across Africa. *BMJ Global Health*, 5, 1-9. doi:10.1136/bmjgh-2020-003088.
10. Belda, S. S., & Tololu, A. K. (2017). Knowledge, attitude and practice of mothers towards female genital mutilation in South West Shoa zone, Oromia region, Ethiopia. *MOJ Public Health*, 6(2), 279–286. DOI: 10.15406/mojph.2017.06.00162
11. Famuyiwa, S. A. (2017). Assessment of knowledge of health consequences and practice of female genital mutilation among parents in Ibadan South East Local Government Area of Oyo State, Nigeria. *Educational Journal of Multi-Disciplinary Studies, University of Port-Harcourt*, 6(1), 1-8. ISSN: 0796-8162
12. Gbadebo, B. M., Salawu, A. T., Afolabi, R. F., Salawu, M. M., Fagbamigbe, A. F., & Adebawale, A. S. (2021). Cohort analysis of the state of female genital cutting in Nigeria: Prevalence, daughter circumcision and attitude towards its discontinuation. *BMC Women's Health*, 21(182), 1-12. <https://doi.org/10.1186/s12905-021-01324-2>
13. Hochbaum, G. M. (1958). Public participation in medical screening programs: A sociopsychological study. (Public Health Service, PHS Publication 572), U. S. Government Printing Office: Washington, DC. 1-23. <https://search.library.wisc.edu/catalog/999694547302121>.
14. Klein, E., Helzner, E., Shayowitz, M., Kohlhoff, S., & Smith-Norowitz, T. A. (2018). Female Genital Mutilation: Health Consequences and Complications—A Short Literature Review, *Obstetrics and Gynecology International*, 1-7. doi.org/10.1155/2018/7365715.
15. Ndikom, C. M., Ogungbenro, F. A., & Ojeleye, O. A. (2017). Perception and practice of female genital cutting among mothers in Ibadan, Nigeria. *International Journal of Nursing and Health Science*, 4(6), 71-80. ISSN: 2381-4861 (Print); ISSN: 2381-4888 (Online).
16. New Step for African Community, NESTAC (2020). The Effects of FGM on Women's Health, Available at <https://nestac.org.uk/2020/02/04/the-effects-of-fgm-on-womens-health>
17. Oladimeji, T. (2019). *Knowledge and Attitude towards Female Genital Mutilation and Its Health Implications among Women in a Community in Osun State*, A paper presented at 8th African Population Conference, Entebbe, Uganda, 18th-22nd November, 2019. <https://uaps2019.popconf.org/abstracts/190418>.
18. Robinson, R., Ojajuni, O. P., Owolabi, I. O., Olunuga, O., & Oni, E. I. (2022). Assessing the knowledge and intention towards the continuation of FGM practice among young girls in South West Nigeria. *Open Journal of Social Sciences*, 10, 271-283. <https://doi.org/10.4236/jss.2022.104020>
19. Tomori, M. O. (2021). Awareness, perception and practice of female genital mutilation among woman of reproductive age in Akure South Local Government Area, Ondo State.

20. World Health Organisation (WHO), *Health Risks of Female Genital Mutilation (FGM)*. Available at [https://www.who.int/teams/sexual-and-reproductive-health-and-research-\(srh\)/areas-of-work/female-genital-mutilation/health-risks-of-female-genital-mutilation](https://www.who.int/teams/sexual-and-reproductive-health-and-research-(srh)/areas-of-work/female-genital-mutilation/health-risks-of-female-genital-mutilation), 21 January, 2022