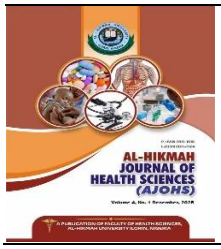
P-ISSN: 2811-1516
E-ISSN: 2811-1524



AL-HIKMAH JOURNAL OF HEALTH SCIENCES (AJOHS)

Official Publication of Faculty of Basic Medical Sciences

Al-Hikmah University Ilorin, Nigeria

https://alhikmahuniversity.edu.ng/AJOHS/index.php/journal

Original Article

Awareness, Attitude, and Practice Related to the Health Risks of Female Genital Mutilation/Cutting among Traditional Birth Attendants in Oyun Local Government Area, Kwara State, Nigeria

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ARTICLE INFO

Article History
Received: 29th September, 2026
Accepted: 17th October, 2026
Available online: 15th November, 2026

Keywords:
Female genital mutilation/cutting
Health risks
Traditional birth attendants
Awareness and practice
Oyun LGA

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ABSTRACT

Introduction: Female genital mutilation/cutting (FGM/C) is a harmful practice prohibited in Nigeria, yet traditional birth attendants (TBAs) remain key actors in its persistence. This study assessed TBAs' awareness of the health risks of FGM/C, their attitudes towards managing and referring its complications, and their related practices in Oyun Local Government Area (LGA), Kwara State, Nigeria.

Methodology: A descriptive cross-sectional survey of 128 TBAs (response rate 93.4%) selected through multistage sampling used a structured, interviewer-administered four-point questionnaire. Data were analysed using descriptive statistics and one-sample t-tests against a criterion mean of 2.50 ($\alpha = 0.05$).

Results: Awareness of health risks was high (grand mean = 3.15), highest for haemorrhage (3.40) and lowest for psychological harm (2.84). Attitudes towards referral and improved care were favourable (3.08), yet 58.6% believed their own care was adequate. Protective practices were inconsistent (grand mean = 2.72), and 34.4% always or often applied traditional substances to wounds. Overall, 87.5% reported having assisted with or performed FGM/C.

Conclusion: TBAs know the main health risks of FGM/C, but their practices are inconsistent. The findings support enforcement of the legal ban, community-based abandonment programmes, alternative livelihoods for TBAs and care for survivors in formal health facilities.

Please cite this article as: Adebisi, V.K., Kayode, B., Oladimeji, L.O. & Abdulganiyu, A.O. (2026). Awareness, Attitude, and Practice Related to the Health Risks of Female Genital Mutilation/Cutting among Traditional Birth Attendants in Oyun Local Government Area, Kwara State, Nigeria. *Al-Hikmah Journal of Health Sciences, 5*(3), 105-111.

Introduction

Female genital mutilation/cutting (FGM/C) comprises all procedures that partially or totally remove the external female genitalia or injure the female genital organs for non-medical reasons; more than 230 million girls and women alive today have undergone it (World Health Organization [WHO], n.d.). It is associated with immediate complications such as haemorrhage and infection and with long-term obstetric and psychological consequences, including post-traumatic stress disorder (Behrendt & Moritz, 2005; Berg et al., 2014). FGM/C is practised in Nigeria but is prohibited by the Violence Against Persons (Prohibition) Act, 2015 (Federal Republic of Nigeria, 2015), and United Nations agencies call for its abandonment and oppose

P-ISSN: 2811-1516
E-ISSN: 2811-1524

its medicalisation (Office of the United Nations High Commissioner for Human Rights et al., 2008).

In many Nigerian communities TBAs are involved in FGM/C and are among the first people consulted when complications occur. In Osun State, TBAs regarded FGM/C as cultural heritage and dismissed information on its dangers (Fafowora & Duma, 2024), and had good knowledge of the warning signs of postpartum haemorrhage but poor management practices (Esan et al., 2023), so delayed recognition and referral are plausible risks for girls and women with FGM/C complications. Understanding what TBAs know, think and do is needed to design abandonment, referral and enforcement strategies.

This study is anchored on the Health Belief Model (Becker, 1974; Glanz et al., 2015): awareness of the health risks of FGM/C reflects perceived susceptibility and severity, attitudes towards referral and traditional care reflect perceived benefits and barriers, and practices show whether these beliefs lead to protective action such as referral.

Locally specific evidence on TBAs' awareness, attitudes and practices related to the health risks of FGM/C is lacking in Oyun LGA, an area with limited formal health facility coverage and continued reliance on TBAs for maternal and reproductive health services.

This study therefore assessed the awareness, attitude and practice of TBAs in Oyun LGA related to the health risks of FGM/C, with the objectives to determine their awareness of the health risks; to assess their attitudes towards managing and referring its complications; and to identify their practices in responding to those complications. It does not aim to improve, support or legitimise the performance of FGM/C or its aftercare by TBAs; its findings are intended to inform abandonment, referral to health facilities and enforcement of the law.

Research Methodology

Research Design

The study used a descriptive cross-sectional design, which collects data from a defined population at a single point in time (Setia, 2016), to describe TBAs' awareness, attitudes and practices related to the health risks of FGM/C in Oyun LGA.

Population of the Study

The population of the study comprised all registered Traditional Birth Attendants practising in Oyun Local Government Area, Kwara State, Nigeria, who had personal knowledge of or direct involvement in female genital cutting practices within their communities, based on the register maintained by the Oyun LGA Primary Healthcare Development Agency.

Sample Size Determination and Sampling Techniques

The sample size was determined using Yamane's (1967) formula, $n = N/(1 + Ne^2)$, with $e = 0.05$. With about 180 registered TBAs in Oyun LGA, $n = 180/(1 + 180 \times 0.0025) = 124.1$. Adding 10% for non-response gave 137 questionnaires, of which 128 valid ones (93.4%) were analysed. Oyun LGA was purposively selected because of the documented prevalence of FGM/C and the concentration of TBA practice. Communities with registered TBAs were listed with the LGA Primary Healthcare Development Agency, the sample was allocated in proportion to registered TBAs per community, and TBAs were selected by simple random sampling from each community register using a table of random numbers.

Research Instrument

Data were collected with a structured, interviewer-administered questionnaire developed by the researcher and adapted from validated instruments used in similar TBA studies (Esan et al., 2023; Fafowora & Duma, 2024). This report analyses six items each on awareness of the health risks of FGM/C, attitudes towards managing and referring its complications, and practices in responding to complications, on four-point scales (Strongly Agree = 4 to Strongly Disagree = 1; Always = 4 to Never = 1). The instrument did not measure attitudes towards continuing or abandoning FGM/C or knowledge of the law.

Validity of the Instrument

Content validity was established by three experts in public health, community medicine, and maternal and child health from Al-Hikmah University. An item-level Content Validity Index of at least 0.80 was required (Polit & Beck, 2006), which with three experts meant unanimous agreement. The questionnaire was also pre-tested with five TBAs from a neighbouring LGA not in the main study.

Reliability of the Instrument

A pilot study with 20 TBAs from Ifelodun LGA, Kwara State, a proximate area with similar socio-cultural characteristics that was not in the main study, assessed internal consistency of the whole instrument with Cronbach's alpha, which was 0.88, above the 0.70 threshold, which shows that the instrument was reliable (Nunnally & Bernstein, 1994).

Method of Data Analysis

Questionnaires were coded, entered into IBM SPSS Statistics version 25.0 and cleaned. Frequencies, percentages, means and standard deviations described respondents and answered the research questions, with 2.50 (the scale midpoint) as the decision mean. Each item mean was compared with 2.50 using a two-tailed

P-ISSN: 2811-1516
E-ISSN: 2811-1524

one-sample t-test (df = 127) with a 95% confidence interval; the null hypotheses were that item means do not differ from 2.50. Items were analysed separately and not pooled, and the harmful practice (applying traditional substances to wounds) was analysed separately from protective practices because a lower frequency is desirable for it.

Ethical Consideration

The study followed the Declaration of Helsinki. Ethical approval was obtained from the Kwara State Ministry of Health Research Ethics Committee on 18th June, 2026 (ERC/MOH/2025/06/775) before data collection began. Participants gave informed consent and were told that participation was voluntary and that they could withdraw at any time. Because FGM/C is unlawful and 87.5% of respondents reported involvement in it, confidentiality needed particular care: questionnaires carried unique codes, and no names, addresses or community names were recorded; who had access to the data; how the ethics committee advised on mandatory-reporting and child-protection duties; and participants were told the limits of confidentiality.

Results

Demographic Characteristics of Respondents

Table 1: Demographic Characteristics of Respondents (N = 128)

Variable	Category	Frequency (%)
Age (years)	Below 30	8 (6.2%)
	30-39	22 (17.2%)
	40-49	41 (32.0%)
	50-59	39 (30.5%)
	60 and above	18 (14.1%)
Sex	Male	5 (3.9%)
	Female	123 (96.1%)
Highest Educational Attainment	No formal education	34 (26.6%)
	Primary school	46 (35.9%)
	Secondary school	31 (24.2%)
	Vocational/Technical training	12 (9.4%)
	Tertiary education	5 (3.9%)
Religion	Islam	79 (61.7%)
	Christianity	43 (33.6%)
	African Traditional Religion	6 (4.7%)
Marital Status	Single	4 (3.1%)
	Married	89 (69.5%)
	Widowed	27 (21.1%)
	Divorced/Separated	8 (6.2%)
Years Practising as a TBA	Less than 5 years	14 (10.9%)
	5-10 years	35 (27.3%)
	11-20 years	46 (35.9%)
	More than 20 years	33 (25.8%)
Ever Assisted with/Performed FGC	Yes	112 (87.5%)
	No	16 (12.5%)

Table 1 shows that 76.6% of the 128 respondents were aged 40 years and above, 96.1% were female, 62.5% had at most primary education and 61.7% had practised as a TBA for at least 11 years. Overall, 87.5% reported having assisted with or performed FGM/C.

Research Question One: What is the level of awareness of TBAs about the health risks of female genital mutilation/cutting in Oyun Local Government Area, Kwara State, Nigeria?

Table 2: Descriptive Statistics of TBAs' Awareness of the Health Risks of FGM/C

Item	SA	A	D	SD	Mean	S.D.
Aware that FGC can cause severe bleeding (haemorrhage) immediately after the procedure	70 (54.7%)	43 (33.6%)	11 (8.6%)	4 (3.1%)	3.40	0.78
Know that infection and wound sepsis are	61	47	16	4 (3.1%)	3.29	0.81

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common complications after FGC	(47.7%)	(36.7%)	(12.5%)			
Aware that FGC can lead to urinary retention and urinary tract infections	44 (34.4%)	55 (43.0%)	23 (18.0%)	6 (4.7%)	3.07	0.84
Know that FGC can cause long-term obstetric complications (prolonged labour, postpartum haemorrhage)	54 (42.2%)	41 (32.0%)	25 (19.5%)	8 (6.2%)	3.10	0.93
Aware that FGC can result in psychological problems (anxiety, depression, PTSD)	43 (33.6%)	39 (30.5%)	29 (22.7%)	17 (13.3%)	2.84	1.04
Know that tetanus is a life-threatening complication if proper wound care is not provided	57 (44.5%)	45 (35.2%)	17 (13.3%)	9 (7.0%)	3.17	0.91
Grand Mean					**3.15**	

Table 2 shows a grand mean of 3.15, indicating high awareness of the health risks of FGM/C. Awareness was highest for haemorrhage (mean = 3.40) and infection or sepsis (3.29) and lowest for psychological consequences (2.84).

H_{01}: The mean awareness score of TBAs for each health risk of FGM/C does not differ from the criterion mean of 2.50.

Table 3: One-Sample t-Tests of TBAs' Awareness Items against the Criterion Mean (2.50)

Item	Mean	S.D.	t	p	95% CI	% Agree
Aware of immediate haemorrhage risk	3.40	0.78	13.08	< .001	3.26–3.53	88.3
Know infection/sepsis is a common complication	3.29	0.81	11.09	< .001	3.15–3.43	84.4
Aware of urinary retention/UTI risk	3.07	0.84	7.65	< .001	2.92–3.22	77.3
Know of long-term obstetric complications	3.10	0.93	7.32	< .001	2.94–3.26	74.2
Aware of psychological consequences	2.84	1.04	3.75	< .001	2.66–3.03	64.1
Know tetanus is a life-threatening complication	3.17	0.91	8.31	< .001	3.01–3.33	79.7

Decision mean = 2.50; df = 127; S.D. = standard deviation; CI = confidence interval of the item mean; % Agree = Strongly Agree + Agree.

Table 3 shows that all six awareness item means were significantly above 2.50 ($p < .001$ for each, including psychological consequences, $t = 3.75$), so H_{01} is rejected. Agreement ranged from 88.3% for haemorrhage to 64.1% for psychological consequences, so about one in three respondents did not agree that FGM/C can cause psychological problems.

Research Question Two: What are the attitudes of TBAs towards managing and referring the complications of female genital mutilation/cutting in Oyun Local Government Area, Kwara State, Nigeria?

Table 4: Descriptive Statistics of TBAs' Attitudes towards Managing and Referring Complications of FGM/C

Item	SA	A	D	SD	Mean	S.D.
Believe that the care I provide after FGC is adequate to prevent serious complications	28 (21.9%)	47 (36.7%)	33 (25.8%)	20 (15.6%)	2.65	0.99
Think it is important to refer severe complications to a formal health facility	71 (55.5%)	41 (32.0%)	11 (8.6%)	5 (3.9%)	3.39	0.81
Believe traditional wound care practices (e.g., herbal applications) are sufficient	29 (22.7%)	42 (32.8%)	40 (31.2%)	17 (13.3%)	2.65	0.98
Think that knowledge of modern wound care practices would improve outcomes	62 (48.4%)	45 (35.2%)	13 (10.2%)	8 (6.2%)	3.26	0.88
Believe health risks of FGC are serious enough to require specialised post-surgical care	60 (46.9%)	39 (30.5%)	24 (18.8%)	5 (3.9%)	3.20	0.88
Willing to adopt evidence-based wound care practices if given training and supplies	63 (49.2%)	46 (35.9%)	16 (12.5%)	3 (2.3%)	3.32	0.78
Grand Mean					**3.08**	

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Table 4 shows a grand mean of 3.08, indicating generally favourable attitudes. The most favourable were the importance of referring severe complications to a health facility (3.39) and willingness to adopt evidence-based wound care if given training and supplies (3.32). The lowest were the belief that TBAs' own care is adequate (2.65) and that traditional wound care is sufficient (2.65); agreement with these (58.6% and 55.5%) shows continued confidence in care that is no substitute for formal health services. The willingness item reflects openness to health-service standards, not a basis for equipping TBAs to manage FGM/C (Section 4.4).

H_{02}: The mean attitude score of TBAs for each item on managing and referring the complications of FGM/C does not differ from the criterion mean of 2.50.

Table 5: One-Sample t-Tests of TBAs' Attitude Items against the Criterion Mean (2.50)

Item	Mean	S.D.	t	p	95% CI	% Agree
Current care is adequate to prevent serious complications	2.65	0.99	1.69	.093	2.47–2.82	58.6
Important to refer severe complications to a health facility	3.39	0.81	12.50	< .001	3.25–3.53	87.5
Traditional wound care alone is sufficient	2.65	0.98	1.72	.088	2.48–2.82	55.5
Modern wound care knowledge would improve outcomes	3.26	0.88	9.74	< .001	3.10–3.41	83.6
Health risks are serious enough to require specialised care	3.20	0.88	9.02	< .001	3.05–3.36	77.3
Willing to adopt evidence-based practices if trained/supplied	3.32	0.78	11.85	< .001	3.18–3.46	85.2

Decision mean = 2.50; df = 127; S.D. = standard deviation; CI = confidence interval of the item mean; % Agree = Strongly Agree + Agree.

Table 5 shows that four of six attitude items were significantly above 2.50 ($p < .001$ for each): referral, benefit of modern wound care knowledge, seriousness of the health risks and willingness to adopt evidence-based practices. Adequacy of TBAs' own care ($t = 1.69$, $p = .093$) and sufficiency of traditional wound care ($t = 1.72$, $p = .088$) did not differ significantly from 2.50, so respondents were divided. H_{02} is rejected for four items and not for the other two.

Research Question Three: What practices do TBAs employ in responding to the complications of female genital mutilation/cutting in Oyun Local Government Area, Kwara State, Nigeria?

Table 6: Descriptive Statistics of TBAs' Practices in Responding to Complications of FGM/C

Item	Always	Often	Rarely	Never	Mean	S.D.
Wash hands with soap and water before and after managing the wound	25 (19.5%)	43 (33.6%)	36 (28.1%)	24 (18.8%)	2.54	1.01
Apply traditional substances (herbal preparations, palm oil, ash, or salt) to the wound	21 (16.4%)	23 (18.0%)	30 (23.4%)	54 (42.2%)	2.09	1.12
Use a clean or sterile dressing to cover the wound	42 (32.8%)	38 (29.7%)	28 (21.9%)	20 (15.6%)	2.80	1.07
Monitor for signs of excessive bleeding or infection	36 (28.1%)	38 (29.7%)	32 (25.0%)	22 (17.2%)	2.69	1.06
Refer severe complications (heavy bleeding, fever, swelling) to a health facility	47 (36.7%)	37 (28.9%)	21 (16.4%)	23 (18.0%)	2.84	1.11
Provide advice to the family on warning signs of complications	42 (32.8%)	32 (25.0%)	33 (25.8%)	21 (16.4%)	2.74	1.09
Grand Mean (five protective practices)					**2.72**	

Note. Applying traditional substances is a harmful practice (lower frequency is better) and is excluded from the grand mean. S.D. = standard deviation. Criterion mean = 2.50.

Table 6 shows a grand mean of 2.72 for the five protective practices. Referral had the highest mean (2.84), followed by clean dressing (2.80), advice to families (2.74) and monitoring (2.69); handwashing had the lowest (2.54). Applying traditional substances (herbal preparations, palm oil, ash or salt) to wounds had a mean of 2.09, but 34.4% did so always or often; it is excluded from the grand mean because a higher score is undesirable (pooled, the mean was 2.62).

H_{03}: The mean frequency of each practice among TBAs in responding to the complications of FGM/C does not differ from the criterion mean of 2.50.

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Table 7: One-Sample t-Tests of TBAs' Practice Items against the Criterion Mean (2.50)

Item	Mean	S.D.	t	p	95% CI	% Always/Often
Handwashing before and after wound management	2.54	1.01	0.44	.663	2.36–2.72	53.1
Application of traditional substances to the wound (harmful)	2.09	1.12	−4.17	< .001	1.89–2.28	34.4
Use of clean/sterile dressing	2.80	1.07	3.15	.002	2.61–2.98	62.5
Monitoring for bleeding or infection	2.69	1.06	2.00	.048	2.50–2.87	57.8
Referral of severe complications	2.84	1.11	3.50	< .001	2.65–3.04	65.6
Advising family on warning signs	2.74	1.09	2.52	.013	2.55–2.93	57.8

Decision mean = 2.50; df = 127; % Always/Often = Always + Often. Applying traditional substances is a harmful practice, so lower frequency is better; it is tested against 2.50 but not pooled with the protective practices.

Table 7 shows that four protective practices were significantly above 2.50: clean dressing ($p = .002$), referral ($p < .001$), advising families ($p = .013$) and monitoring ($p = .048$, borderline). Handwashing did not differ from 2.50 ($p = .663$; 53.1% always or often), and application of traditional substances was significantly below it ($t = -4.17$, $p < .001$), although 34.4% reported it. H_{03} is rejected for four protective practices and not for handwashing, so practice is inconsistent.

Discussion

Awareness of the Health Risks of FGM/C

TBAs were significantly aware of the health risks of FGM/C, particularly haemorrhage, infection and urinary complications. Lower awareness of psychological harm (2.84; 64.1% agreeing) is notable because long-term psychological consequences, including post-traumatic stress disorder, are documented (Behrendt & Moritz, 2005). High awareness coexisted with high involvement (87.5% reported assisting with or performing FGM/C), as in Osun State, where TBAs dismissed information on its dangers (Fafowora & Duma, 2024); information alone is unlikely to end the practice.

Attitudes towards Managing and Referring Complications

Attitudes towards referral were favourable (3.39; 87.5% agreeing), which is encouraging because timely referral of severe complications is where TBAs can help reduce harm without taking part in FGM/C. However, 58.6% believed their own care was adequate and 55.5% that traditional wound care was sufficient, consistent with Esan et al. (2023), who found good knowledge of postpartum haemorrhage warning signs alongside poor management practices among TBAs. Attitudes towards abandoning FGM/C were not assessed, and Fafowora and Duma (2024) found them marked by denial and resistance, so these favourable attitudes are not evidence of support for abandonment.

Practices in Responding to Complications

Practice was inconsistent. Referral (2.84) and clean dressing (2.80) were strongest, handwashing did not differ from the midpoint (2.54), and 34.4% always or often applied traditional substances to wounds, which risks infection. The practice grand mean (2.72) was lower than the awareness (3.15) and attitude (3.08) grand means, a knowing–doing gap that the Health Belief Model attributes to perceived barriers (Becker, 1974) and that parallels Esan et al. (2023); it was not tested statistically. Self-reported practice on a harmful act may be under-reported.

Legal and Policy Context

FGM/C is prohibited by the Violence Against Persons (Prohibition) Act, 2015 (Federal Republic of Nigeria, 2015), and United Nations agencies oppose its medicalisation by any provider (Office of the United Nations High Commissioner for Human Rights et al., 2008). That 87.5% of surveyed TBAs reported involvement points to continued unlawful practice, and the findings on referral and wound care must not be used to equip or train TBAs to perform or manage FGM/C. WHO's guidelines address the management of its complications by health workers in health facilities (WHO, 2016).

Conclusion

TBAs in Oyun LGA are significantly aware of the health risks of FGM/C, mainly immediate physical complications, but less aware of psychological harm. They favour referring severe complications, yet more than half believe their own or traditional wound care is adequate, and about one-third always or often apply harmful substances to wounds. With 87.5% reporting involvement in FGM/C, the findings support abandonment, enforcement and formal health-facility care for survivors, not capacity-building for TBAs to manage FGM/C.

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Recommendations

Based on the findings, the following recommendations are made:

- The relevant Federal and Kwara State authorities should enforce the Violence Against Persons (Prohibition) Act, 2015 and applicable state laws against performing or assisting FGM/C, with safe reporting channels and child-protection follow-up.
- The Kwara State Ministry of Health, Oyun LGA authorities, non-governmental organisations and religious and traditional leaders should run community-based abandonment programmes and alternative livelihood programmes for TBAs, with education on all health risks of FGM/C, including psychological harm, and on its legal status.
- The Kwara State Ministry of Health should ensure that girls and women with FGM/C complications can reach emergency and clinical care in formal health facilities through clear referral pathways, and should not supply dressings, antiseptics or other materials to TBAs for FGM/C-related care.
- Further research should assess TBAs' attitudes towards abandonment and knowledge of the law, test associations between awareness, attitudes and practice, and evaluate abandonment interventions.

Limitations of the Study

The study covered registered TBAs in one LGA, so unregistered TBAs are not represented and findings may not generalise. The cross-sectional design does not permit causal inference, and associations between awareness, attitudes and practice were not tested. Attitudes towards abandoning FGM/C and knowledge of the law were not measured. Self-reported data on an unlawful act are likely to be affected by social-desirability bias, and the sample of 128 is small.

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