

# PRACTICE OF FEMALE CIRCUMCISION: EFFECTS OF HEALTH PROMOTION INTERVENTION IN NIGERIA

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**Abstract:** The practice of female circumcision (FC) is both barbaric and dehumanizing. Efforts to stop the practice in parts of Nigeria where it exists have not yielded the desired result. The study aims at determining the effects of Health Promotion Intervention (HPI) on the practice of FC, knowledge of health implications of FC and awareness of the ban on FC in Nigeria. A quasi-experimental design was used. Ten rural communities in Abia State, Nigeria were purposively selected for allocation into experimental and control groups of five communities each. A sample size of 860 pregnant women was systematically selected from a population of 1720 households enumerated for the survey. Data were collected using a structured questionnaire that was interviewer administered and were analyzed quantitatively. Analysis of knowledge, awareness and practice of FC were taken before and after HPI and compared in both experimental and control groups. Knowledge of health implications of FC increased from 28(14%) to 177(88.5%). Awareness of the ban on FC in Nigeria increased from 30(15%) to 182(91%) while the practice of FC decreased from 126(63%) to 20(10%). There was no significant increase in the control group both in knowledge and awareness and no decrease in the practice of FC. Health promotion intervention activities among rural women caused a decrease in the practice of female circumcision by 106 (53%). Health promotion intervention is a veritable strategy for increasing knowledge of health implications of FC, awareness of the ban on FC, and decreasing the practice of FC among rural women.

**Keywords:** Health promotion intervention, effects, female circumcision, rural communities, Nigeria.

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## I. INTRODUCTION

Female circumcision (FC) is defined by World Health Organization (WHO) [1], as “All procedures that involve partial or total removal of the external female genitalia, other injury to female genital organs for no-medical reasons”. WHO also classified FC into four major types.

Type I clitoridectomy: Partial or total removal of the clitoris. Clitoris is a small penis-like sensitive and erectile part of the female genitalia while the prepuce is the fold of skin surrounding the clitoris; which in rare cases may be the only part removed during clitoridectomy [2]. Clitoridectomy is the mildest and less traumatic type of FC [3]. Type II Excision: Is partial or total removal of the clitoris and the labia minora. The labia are the lips that surround the vagina. Type III Infibulations: Is the narrowing of the vaginal opening by cutting and fastening the inner or outer labia of the vagina together, with or without removing the clitoris. The apposition of the wound edges is followed by stitching or holding the cut edges together for some period of time in order to create a covering seal, such as binding the girl’s legs together [4] and leaving a small opening for urine and menstrual flow [5],[8]. Type IV: Consists of other harmful acts done to the female genitalia such as pricking, piercing, scraping and cauterization, burning of the clitoris using corrosive substances. Types III and IV are highly traumatic [9].

In the study area, circumcision of both male and female children is traditionally performed on the eighth day of birth by the traditional circumcisers/practitioners. These include grandmothers, traditional birth attendants, and more recently, community health workers, hospital staff (Nurses, Midwives and Doctors). Instrument used for circumcision include sharp objects like knife, razorblade, broken glass [2],[10],[13] and chisel, locally called “*Aguba*” in the study area.

Medicalization of this practice has added to its propagation [11] and at the same time stiffened the resolve to mitigate the practice [11]. Sterile medical equipments and modern techniques are now used to reduce FC health consequences [10], [12], [13], [14].

Historically, the practice of FC started in ancient Egypt at the time of the Pharaohs 1400 B.C. to 2000 B.C. [15]. From African continent FC spread to other continents of the world through emigration, trans-Saharan and trans-Atlantic slave trades [5], Momoh, [16] stated that female circumcision was practiced by all nations of the world including the Romans who in order to avoid their female slaves from becoming pregnant, installed some rings on the two sides of the outer lips of the uterus. Somali in Africa has the greatest prevalence of FC, [17]. Reasons for Practicing FC: are traceable to culture, tradition, and social obligations aimed at controlling female’s sexuality and recently for monetary reward/attraction [18], [19], [20].

Health consequences of FC are too numerous ranging from physical complications to psychological and social consequences.

The Nigerian government has recognized the practice of female circumcision as a major public health problem [19], [20] and has recently banned it. However, majority of rural women who live in hard-to-reach rural villages without light, television or radio, still practice FC out of ignorance of the ban. The aim of this research is to determine the effects of health promotion intervention (HPI) on the practice of FC, knowledge of health implications of FC and awareness of the ban on FC in Nigeria.

## II. MATERIALS AND METHODS

A quasi-experimental study design was carried out in ten purposively selected rural communities in Abia State, Nigeria. Experimental and control groups were allocated five communities each. All households within the study area that have pregnant women with previous female children were included while all pregnant women without previous female child and pregnant women who participated in the pre-intervention interview but whose pregnancy outcome was not female child were excluded from the post intervention interview.

An eligible population size of 1720 pregnant women was enumerated. Experimental and control groups had 844 and 876 pregnant women respectively. Sample sizes of 422 and 438 pregnant women were determined by systematic random sampling method using a sampling interval of 2 in both experimental and control groups according to Akpala [21] and Ejemot-Nwadiaro [23]. The out come of pregnancy in experimental and control groups was 200 and 218 female children respectively; the outcome of pregnancy in the rest of the women was either male children, still births or miscarriage. The final sample sizes in experimental and control groups became 200 and 218 respectively. Data collection and analysis before and after health promotion interventions were based on these final sample sizes of 200 and 218 women, excluding those whose pregnancy outcome was not female children. The pregnancy was monitored until delivery by the research assistants who administered the post intervention questionnaire after eight days of child delivery. This is because custom allows circumcision of both male and female children to be performed on the eighth day of birth. A structured questionnaire was used for data collection. Data collected were analyzed using the SPSS V20. McNemar and Chi-square statistic were used in determining significance and testing the null hypotheses at 95% confidence level. Health Promotion Intervention (HPI) involved the following steps;

**Step 1; Advocacy and community approval:** Permission to carry out the project was sought and obtained from the community leaders, opinion leaders and women organization leaders. They were briefed on the aims and objectives of the project and its benefits to the baby girl, the family and the community.

**Step 2; Community mobilizations:** The experimental communities were mobilized and involved in the Health Education, information, and Behavioural Change Communication activities during an interactive session with the research team.

**Step 3; Interpersonal communication/ interactive discussion in local dialect:** The researchers invited the selected pregnant women and their spouses to an interactive discussion in their community hall. At the meeting, they were taught the adverse effects of female circumcision. What they held as merit of female circumcision and illusory fears and belief

about not circumcising females were allayed through behavioural change communication during the interaction. They became knowledgeable about the twenty major health implications of female circumcision and aware of the ban Nigerian government placed on female circumcision and the punishment for offenders. No Health Promotion Intervention was carried out in the control communities. Permission to conduct the study was sought and obtained from the community women leaders, political and traditional leaders (chiefs) before embarking upon the project. Personal consent of the individuals interviewed was sought and obtained before administering the questionnaire on them. Data collected were handled in strict confidence.

### III. RESULTS

The result of the socio-demographic and economic characteristic of respondents showed that the experimental and control groups were comparable (Table 1). Majority of respondents were within the age bracket of 30-39 years in both experimental and control groups. Farming was the major occupation of the respondents in both groups. In the experimental group 52(26%) had no formal education while 59(27%) had no formal education in the control group. 78(39%) of respondents in experimental group and 85(39%) in control group monthly income was less than \$200.

Table 2 shows the effect of Health Promotion Intervention (HPI) on the practice of Female Circumcision (FC). Before intervention the practice of FC was 126(63%) and after intervention, the practice became 20(10%), giving a decrease in practice of 106(53%) in experimental group. Further analysis using Chi-square statistic showed it was significant ( $P=0.010$ ). The null hypothesis that HPI does not decrease the practice of FC was rejected. In the control group where HPI did not take place no decrease in the number of respondents practicing FC.

Table 3 shows the effect of HPI on the Knowledge of health implications of FC. Before intervention 28(14%) of the respondents knew the health implications of FC but after intervention 177(88.5%) were knowledgeable, giving an increase of 149(74.5%) in experimental group. Further analysis using McNemar test statistic yielded 0.071 an indication that this finding was highly significant. The null hypothesis that HPI does not increase people's knowledge about the health implications of FC was rejected. In the control group no increase in the knowledge of health implications of FC.

Table 4 shows the effect of HPI on the awareness of the ban on FC in Nigeria. In the experimental group, 30(15%) of the respondents were aware of the ban on FC before intervention but after intervention 182(91%) became aware of the ban, giving an increase of 152(76%). Further analysis using McNemar test statistic yielded 0.409 and indication that this finding was statistically significant. The null hypothesis that HPI does not increase people's level of awareness about the ban on FC in Nigeria was rejected. In the control group where HPI did not take place no increase in awareness of the ban on FC.

Table 5 shows influence of knowledge of health implications of FC on the practice of FC: Before intervention, 28(14%) of respondents that knew the health implications of FC, only 4(2%) still continued with the practice while 24(12%) did not. After intervention, 177(88.5%) that knew the health implications of FC only 2(1%) continued with the practice while 175(87.5%) did not. The null hypothesis that knowledge of health implications of FC does not influence the practice of FC was rejected and we concluded that knowledge of health implications of FC significantly influenced the practice of FC in Nigeria.

Table 6 shows the influence of the ban on FC and the practice of FC. Before intervention, 30(15%) of respondents that were aware of the ban on FC in Nigeria, 28(14%) did not continue with the practice while 2(1%) continued. After intervention, 182(91%) that were aware of the ban on FC, only 4(2%) continued with the practice while 178(89%) did not. The null hypothesis that awareness of the ban on FC in Nigeria does not influence the practice of FC was rejected and we concluded that awareness of the ban on FC influences the practice of FC in Nigeria.

### IV. DISCUSSION

The findings that before health promotion intervention (HPI) the practice of female circumcision by pregnant women with previous female children, was 63% and after health promotion intervention the practice became 10%, giving a decrease in practice of 53% in the experimental group whereas in control group no decrease in practice of FC was noticed, is therefore a clear indication that HPI reduced the practice of FC in the study area (Table 2).

The findings in Table 3, that knowledge of health implications of FC increased by 74.5% after HPI in the experimental group but did not increase in the control group is a clear indication of the effect of HPI on knowledge of health implications of FC. Similarly, the findings in Table 4 that awareness of the ban on FC in Nigeria increased after HPI by

76% in the experimental group but did not increase in the control group is indicative of the effect of HPI on awareness of the ban on FC.

The finding in table 5 that knowledge of twenty health implications of FC significantly influenced the practice of FC is in keeping with similar works done elsewhere [20], [23], [24]. Earlier researchers had reported that individuals' change in attitude and behavior depends on quality of education, information and behavioral communication received [24].

The finding in table 6 that level of awareness of the ban on FC in Nigeria influences the practice of FC corroborates the findings elsewhere that level of awareness of the ban of FC increases with increase in health education. [8], [9] People who are aware of punitive measures for any contrary action they might take are more likely to refrain from taking such action than those who are not aware of the consequences of the action [3]. It is likely from the study that the observed reduction in the practice of FC after HPI could be attributable to the fact that more rural women became aware of the ban on FC in Nigeria and the dictates of the law hence they refrained from the practice [3], [20], [24].

## V. CONCLUSION

Health promotion intervention (HPI) is a pragmatic approach for decreasing the practice of female circumcision, increasing the knowledge of health implications/consequences of FC and increasing the awareness of the ban on FC in Nigeria. The paper hereby recommends the sustainability of HPI and its extension to other areas where the practice of FC still persists.

## REFERENCES

- [1] World Health Organization (WHO) (2010). Female Genital Mutilation: WHO Media Centre. Fact sheet No 241. World health Organization;
- [2] Ofor MO, Ofole NM. (2015). Female Genital Mutilation: The Place of Culture and the Debilitating Effects on the Dignity of the Female Gender. Euro Sci J; 11(14): ISSN: 1857-7881 (Print) e-ISSN 1857-7431
- [3] Yerima TF, Atidoga DF. (2014). Eradicating The Practice of female Circumcision/ Female Genital Mutilation in Nigeria within the Context of Human. Rights. J Law, Policy and Globalization; 28:129-140 ISSN 2224-3240 (Paper) ISSN 2224-3259.
- [4] Amnesty International Document (AID), (2013). Retrieved from; <http://www.endfgm.eu/en/female-genital-mutilation/what-is-fgm/what-is-fgm/>
- [5] Ahmadi ABA. (2013). An Analytical Approach to Female Genital Mutilation in West Africa. Int. J. Women's Research Spring; 3(1): 37-56
- [6] Jungari SB. (2016) Female Genital Mutilation is a Violation of Reproductive Rights of Women: Implications for Health Workers. Health Soc Work. 41(1): 25-31.
- [7] Bogale D, Markos D, Kaso M. (2014). Prevalence of Female Genital Mutilation and its Effect on Women's Health in Bale Zone, Ethiopia: A Cross-Sectional Study. BMC Public Health. 14:1076. doi: 10.1186/1471-2458-14-1076
- [8] Mandara MU. (2005) "Female Genital Mutilation in Nigeria: Int. J. Gynecol and Obstet. [www.elsevier.com/ijgo](http://www.elsevier.com/ijgo)
- [9] Office on Women's Health (OWH). Female Genital Cutting A fact Sheet from the Office on Women's Health. Retrieved from [www.womenshealth.gov/800-994-9662](http://www.womenshealth.gov/800-994-9662). [Last accessed on 2015 Nov. 22]
- [10] Ibrahim IA, Oyeyemi AS, Ekine AA, (2013). Knowledge, Attitude and Practice of Female Genital Mutilation among Doctors and Nurses in Bayelsa State, Niger-Delta of Nigeria. Int. J. Med. Biomed Res. 2(1):40-4
- [11] Hamid R. (2013). Female genital mutilation: A Tragedy for women's reproductive health. Afric J. Urology; 19: 130-133
- [12] Bogale D, Markos D, Kaso M. (2015). Intention toward the Continuation of Female Genital Mutilation in Bale Zone, Ethiopia. Int. J. Womens Health. 7:85-93. doi: 10.2147/IJWH.S74832. eCollection 2015.
- [13] Adewale Ashime, Labaran Aliyu, Muhammad shittu & Taiwo Amole. (2014). A multicentre study on knowledge and attitude of nurses in northern Nigeria concerning female genital mutilation. The European Journal of Contraception & Reproductive Health Care. 19(2) : 134-140
- [14] World Health Organization (WHO) (2010). Global Strategy to Stop Health Care Providers from Performing Female Genital Mutilation: WHO/RHR/10.9

- [15] Drummer L. Magic & Ritual Abuse: Female Circumcision in Central and Western African, Retrieved from <http://Dragonheadmusci.com/Africanwomendjembefola/2010>
- [16] Momoh C. (2005) Female Genital Mutilation, Oxford Radcliffe Publishing.
- [17] Amnesty International Document (2013). Retrieved From: <http://www.endfgm.eu/en/female-genital-mutilation/what-is-fgm/where-is-it-practiced/2013>
- [18] Tesfaye Setegn, Yihunie Lakew, & Kebede Deribe. (2016). Geographic Variation and Factors Associated with Female Genital Mutilation among Reproductive Age Women in Ethiopia: A National Population Based Survey. PLOS One. 11(1): e0145329. doi: 10.1371/journal.ponr.0145329
- [19] Ibekwe PC, Onoh RC, Onyebuchi AK, Ezeonu PO, and Ibekwe RO. (2012). Female Genital mutilation in Southeast Nigeria: A survey on the current knowledge and practice. J. Pub. Health and Epid 4(5): 117-122
- [20] Ahamonu EL. Victor O. (2014). Mothers' Perceptions of female genital mutilation. Health Educ. Res. (4): 683-689. doi: 10.1093/her/cyt118
- [21] Akpala O. (1994). Epidemiological research: A Practical Approach for the Medical & Nursing Sciences Enugu: University of Nigeria Press..
- [22] Ejemot-Nwadiaro R.I. (2009). A Guide to Biostatistics & Health Research Methods. Calabar Data pro Publishers.
- [23] Adewale O. A, Taiwo G. A, Zubairu I. (2015). Prevalence and predictors of female genital mutilation among infants in a semi urban community in Northern Nigeria. Sexual & Reproductive Health Care. 6(4): 243-248
- [24] Albert Bandura. (1977). Social Learning Theory, Perspective, Behaviorism, Simply Psychology. Available from. <http://www.simplypsychology.org>. [last accessed on 2015 Nov. 22]

## APPENDIX - A

### List of Tables:

**Table 1: Socio-Demographic and Economic Characteristics of Respondents**

Variable	Experimental group (n = 200)		Control group (n = 218)		
	n	%	n	%	
Age (Years)	< 20	42	21	46	21
	20 – 29	54	27	61	28
	30 – 39	72	36	78	36
	40 ≥	32	16	33	15
Occupation	Not employed	40	20	44	20
	Farming	74	37	83	38
	Self employed	50	25	52	24
	Paid employment	36	18	39	18
Education	No formal education	52	26	59	27
	Primary	74	37	78	36
	Secondary	46	23	48	22
	Tertiary	28	14	33	15
Monthly income	< \$ 200	78	39	85	39
	\$200 - \$300	74	37	81	37
	\$400 - \$500	30	15	30	14
	\$600 ≥	18	9	22	10

**Table 2: Effect of HPI on the Practice of FC**

HPI	Experimental group (n = 200)			Control group (n = 218)		
	Practice FC			Practice FC		
	Yes	No	Total	Yes	No	Total
Before HPI	126 (63%)	74 (37%)	200	135 (62%)	83 (38%)	218
After HPI	20 (10%)	180 (90%)	200	135 (62%)	83 (38%)	218
Decrease in practice of FC	106 (53%)			0 (0%)		
X <sup>2</sup> Value	121.2			X <sup>2</sup> Value	0.000	
P-value	0.010			P-value	0.995	

Legend: FC = Female Circumcision; HPI = Health Promotion Intervention

**Table 3: Effect of HPI on the Knowledge of Health Implication of FC**

HPI	Experimental group (n = 200)			Control group (n = 218)		
	Know the health implication of FC			Know the health implication of FC		
	Yes	No	Total	Yes	No	Total
Before HPI	28 (14%)	172 (86%)	200	31 (14%)	187 (86%)	218
After HPI	177 (88.5%)	23 (11.5%)	200	31 (14%)	187 (86%)	218
Increase in knowledge	149 (74.5%)			0 (0%)		
McNemar Test Statistic	0.071			McNemar Test Statistic	111.6	

Legend: FC = Female Circumcision; HPI = Health Promotion Intervention

**Table 4: Effect of HPI on the Awareness of the Ban on FC**

HPI	Experimental group (n = 200)			Control group (n = 218)		
	Aware of the ban on FC			Aware of the ban on FC		
	Yes	No	Total	Yes	No	Total
Before HPI	30 (15%)	170 (85%)	200	83 (38%)	135 (62%)	218
After HPI	182 (91%)	18 (9%)	200	83 (38%)	135 (62%)	218
Increase in Awareness	152 (76%)			0 (0%)		
McNemar Test Statistic	0.409			McNemar Test Statistic	12.403	

Legend: FC = Female Circumcision; HPI = Health Promotion Intervention

**Table 5: Influence of Knowledge of Health Implications of FC on the Practice of FC**

Knowledge	Practice of female circumcision					
	Before HPI			After HPI		
	PFC	DPFC	Total	PFC	DPFC	Total
Knowledge of health implication of FC	4 (2%)	24 (12%)	28 (14 %)	2 (1%)	175 (87.5%)	177 (88.5%)
No knowledge of health implications of FC	172 (86%)	0 (0%)	172 (86%)	4 (2%)	19 (9.5%)	23 (11.5%)
Total	176 (88%)	24 (12%)	200 (100%)	6 (3%)	194 (97%)	200 (100%)
X <sup>2</sup> Value	188.56			X <sup>2</sup> Value 11.26		

Legend: FC = Female Circumcision; HPI = Health Promotion Intervention;

PFC= Practice Female Circumcision

DPFC = Don't Practice Female Circumcision

**Table 6: Influence of Awareness of the Ban on FC and the Practice of FC**

Awareness	Practice of female circumcision					
	Before HPI			After HPI		
	PFC	DPFC	Total	PFC	DPFC	Total
Aware of the ban	2 (1%)	28 (14%)	30 (15%)	4 (2%)	178 (89%)	182 (91%)
Not aware of the ban on FC	170 (85%)	0 (0%)	170 (85%)	6 (3%)	12 (6%)	18 (9%)
Total	172 (86%)	28 (14%)	200 (100%)	10 (5%)	190 (95%)	200 (100%)
X <sup>2</sup> Value	194.09			X <sup>2</sup> Value 29.38		

Legend: PFC = Practice Female Circumcision;

DPFC = Don't Practice Female Circumcision;

FC = Female Circumcision; HPI = Health Promotion Intervention