Approval

We certify that we have read the thesis submitted by "Effect of Female Genital Mutilation on Obstetric, Gynecologic Outcome and Sexual Function in Ibadan, Nigeria" and that in our combined opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Nursing Sciences.

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Effect of Female Genital Mutilation on Obstetric, Gynecologic Outcome and Sexual Function in Ibadan, Nigeria

M.Sc. THESIS

Promise Ifechukwu OKPARA

Nicosia

June, 2022

THE THESIS TITLE

NEAR EAST UNIVERSITY INSTITUTE OF GRADUATE STUDIES DEPARTMENT OF NURSING

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Head of the Institute of Graduate Studies

Declaration

I hereby declare that all information, documents, analysis, and results in this thesis have been collected and presented according to the academic rules and ethical guidelines of Institute of Graduate Studies, Near East University. I also declare that as required by these rules and conduct, I have fully cited and referenced information and data that are not original to this study.

> Promise Ifechukwu OKPARA 23/06/2022

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Decontee M. Browne, I am writing to express my deepest gratitude as I delegate my thesis to each of you who have played a significant role in its completion. Your contributions, support, and guidance have been invaluable throughout this journey, and I am honored to acknowledge your role in this achievement.

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Promise Ifechukwu OKPARA

Abstract

Effect of Female Genital Mutilation on Obstetric, Gynecologic Outcome and Sexual Function in Ibadan, Nigeria

Okpara, Promise Ifechukwu Supervisor: Assist. Prof. Dr. Serap TEKBAŞ MA, Department of Nursing June, 2022, 72 pages

Purpose: This study aimed to determine the impact of female genital mutilation on obstetric, gynecological and sexual outcomes in Ibadan, Nigeria. Material and Methods: This study is a cross-sectional descriptive study. Data were collected using the multistage sampling technique. A self-administered questionnaire was used to obtain data from 161 women who agreed to participate in the study. After the data were collected, the sample group was divided into two groups as those with genital mutilation and those without. Findings: Most of the women surveyed in Ibadan are literate (91.3%), young (59.6%), working (92.5%) and of reproductive age. It was found that only type I (77.3%) and type II (22.7%) mutilation were found in women with genital mutilation in the sample group. In terms of age, religion, economic status, education level, number of children, and employment status, most women with genital mutilation experienced sexual dysfunctions such as postpartum hemorrhage and dysmenorrhea, and discomfort/pain during vaginal penetration. The rate of orgasm during sexual intercourse was found to be lower among women with genital mutilation.

Conclusion and Recommendations: In our study, it was determined that women with mutilation experienced more sexual health problems and were aware of the negative effects of genital mutilation on health. It is important that women with genital mutilation receive the necessary counseling in order to be less affected by the negative effects. In addition, the continuity of education programs is required to prevent genital mutilation practice from continuing.

Keywords: Female genital mutilation, gynecologic outcome, sexual function

Nijerya İbadan'da Kadın Sünnetinin Obstetrik, Jinekolojik Sonuçlar ve Cinsel İşlev Üzerine Etkisi

Özet

Okpara, Promise Ifechukwu Danışman: Yard.Doç. Dr. Serap TEKBAŞ Yüksek Lisans, Hemşirelik Programı Haziran, 2022, 72 Sayfa

Amaç: Bu çalışma, Nijerya, Ibadan'da kadın sünnetinin obstetrik, jinekolojik ve cinsel sonuçlar üzerindeki etkisini belirlemeyi amaçladı.

Gereç ve Yöntemler: Bu çalışma, kesitsel tanımlayıcı bir çalışmadır. Veriler çok aşamalı örnekleme tekniği kullanılarak toplanmıştır. Çalışmaya katılmayı kabul eden 161 kadından veri elde etmek için kendi kendine uygulanan bir anket kullanıldı. Veriler toplandıktan sonra örneklem grubu genital mutilasyon olanlar ve olmayanlar olarak iki gruba ayrıldı.

Bulgular: İbadan'da ankete katılan kadınların çoğu okuryazar (91.3%), genç (59.6%), çalışan (92.5%) ve üreme çağındadır. Örneklem grubunda genital mutilasyonlu kadınlarda sadece tip I (77.3%) ve tip II (22.7%) mutilasyona rastlanmıştır. Yaş, din, ekonomik durum, eğitim düzeyi, çocuk sayısı ve çalışma durumu açısından, genital mutilasyonlu kadınların çoğu doğum sonu kanama ve dismenore gibi cinsel işlev bozuklukları ve cinsel ilişki sırasında rahatsızlık/ağrı yaşamıştır. Genital mutilasyonlu kadınlarda cinsel ilişki sırasında orgazm oranı daha düşük bulundu.

Sonuç ve Öneriler: Çalışmamızda mutilasyonu olan kadınların daha fazla cinsel sağlık sorunu yaşadıkları ve genital mutilasyonun sağlığa olumsuz etkilerinin farkında oldukları belirlendi. Genital mutilasyon olan kadınların olumsuz etkilerden daha az etkilenmeleri için gerekli danışmanlığı almaları önemlidir. Ayrıca genital mutilasyon uygulamasının devam etmemesi için eğitim programlarının sürekliliği gerekmektedir.

Anahtar Kelimeler: Kadın sünneti, jinekolojik sonuçlar, cinsel işlev

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LIST OF ABBREVIATIONS AND SYMBOLS

FGM/C- female genital mutilation/cutting

C R- clitoral reconstruction

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CHAPTER I

Introduction

Among other crimes and violations against the girl child and women across the globe, female genital mutilation practice has continued to exist, especially among African populations (Mpinga et al., 2016). Despite the many efforts by non-governmental organisations within and off the shores of Africa, the rate of the practice burgeons. This is widespread in both rural and urban communities as factors and perpetrators have influence and reach from their rural domain to the urban domain. For instance, parents in rural area, especially mothers visit the cities to help in nursing newborn babies and come along with the thoughts of genital mutilation for their ground daughters (Elbendaryet al., 2020). This often causes serious reactions between the families (parents who want their granddaughters mutilated and the mother of the child. Perhaps, between the FGM-supporting parties, and the objecting parties. In some cases, mothers do abscond with their daughters to resist genital mutilation.

All these types of mutilation are harmful and life-threatening to the victims, most of who live with the trauma, pains, and complications for the rest of their lives. The risks of the socially and culturally-driven dangerous practice are enormous and terrifying. These are excessive bleeding (haemorrhage), severe pain, fever, urinary problems, injury to surrounding genital tissue, genital tissue swelling, wound healing problems, infections e.g., tetanus, shock, and death. Some of the health implications that live with the victims, perhaps, forever, are vaginal problems, urinary problems, menstrual problems, sexual dysfunction, scar tissue, and keloid; childbirth complications, and newborn deaths; psychological problems, and need for later surgeries (WHO, 2020).

Statement of the Problem

Among other forms of violence against the female gender across the universe, the rate of female genital mutilation has continues to be on the increase, especially in Africa. Mutilation of the female genitals accounts for many physical, mental, or and psychological effects experienced by females. In Nigeria, FGM has the highest prevalence in the south-south (77%) (among adult women), followed by the southeast (68%) and southwest (65%), but practiced on a smaller scale in the north, paradoxically tending to in a more extreme form (UNICEF, 2001). A 2021 study reported a variation

in FGM/C prevalence among girls between 0–14 years over time, and this variation is across geographical locations with a decline in the South to an increase in the North (Nnanatu, Atilola, Komba, Mavatikua, Moore, Matanda, et al., 2021). In Nigeria, 67% of girls and women aged 15 to 49 know about FGM/C and think the practice should be stopped (UNICEF, 2021).

These statistics have not significantly changed in these culturally and socially identifiable and characterised regions. Ibadan, the largest and third most populous in Nigeria is an ancient city, the capital of Oyo State in southwest Nigeria, notable with high cultural identities and practices among which is Female Genital Mutilation. No known study to this researcher has investigated the implications of FGM/C among women in Ibadan, Nigeria. This is the crux of this study as it aimed to identify the FGM/C types undergone by the women, the prevalence of the practice, perceptions of the women, the outcomes, and sexual function of the practice among women in Ibadan, Nigeria.

Significance of the Study

The findings of this study will help to create more awareness on the physical, health, mental, and psychological implications of female genital mutilation, and the need to put an end to the inhumane practice. Also, this study will further establish the need to give adequate medical care to victims of female genital mutilation, and possible free clitoral reconstruction for interested victims. The findings will further contribute to the body of knowledge and drive a call for action from government and non-governmental organisations.

This study investigates the effect of female genital mutilation on obstetric outcomes and sexual function in Ibadan, Nigeria to create more awareness about the FGM/C practice and its physical, mental, and psychological hazards on affected women. The findings of this study will also lend a voice to the elimination of the injurious, violent, and women right's violation practice in the region, as a drive to eliminate the practice in Nigeria.

Purpose of the Study

This study aims to determine the effects of female circumcision on female reproductive health and sexual health and to reveal the difference between reproductive health and sexual health problems among women with and without genital mutilation.

Research Questions

Study questions include the following:

1-What are the types of FGM to which women are exposed?

2-Is there a difference in obstetric outcomes between those who have FGM and those who do not?

3-Is there a difference in sexual problems between those who have FGM and those who do not?

4- Is there a difference between the types of FGM in terms of sexual problems?

Limitation

This study is limited the effect of female genital mutilation on obstetric outcomes and sexual function in Ibadan, Nigeria. It does not cover the entire women in Oyo State, and does not cover other female genital mutilation implications.

CHAPTER II

Literature Review

Female Genital Mutilation

Female genital mutilation (FGM) describes the partial and or total removal of the external genitalia of a female at any age or inflicting any form of injurious cut to the female genital organs for reasons that are not medically certified or required (World Health Organisation, 2020). Female genital mutilation or cutting (FGM/C) means causing a pierce, cut, removal of all or part of a girl's or woman's external genitals for no medical reason (Office on Women's Health, 2019). It is a non-therapeutic and non-medical act that involves the removal (partial or total) of the female external genitalia. It causes untold hurt, pain, and injury to the female external genital organs (World Health Organisation, 2020). As a global health concern, women's bodily rights, integrity, and health violation, female genital mutilation (FGM) is suffered by more than 200 million females- women and girls across the globe (Agboli, 2020).

The overall wellbeing of mutilated women gets disrupted as a result of FGM. They get psychologically broken, feel socially unwanted, physically unbalance, and spiritually unsound as a result of female genital mutilation experience (Mpinga et al., 2016). According to a report by WHO, over 200 million girls and women alive today have been cut in 30 countries in Africa, the Middle East, and Asia, and such is deemed to be unhealthy (cause severe bleeding and urinary challenges, and later cysts, infections, as well as childbirth complications and increased risk of new-born deaths), and ultimately, a violation of the fundamental human rights of women and girl child (World Health Organisation, 2021).

FGM is widely practiced in Nigeria, and with its large population, Nigeria has one of the highest absolute numbers of cases of FGM in the world, accounting for about one-quarter of the estimated 200 million girls and women that have been cut in 31 countries (United Nations International Children Emergency Fund, 2001). As the most populous nation in Africa, Nigeria is deeply involved in the mutilation of female genitals usually before the age of 15, for cultural and social factors across various ethnic groups. Though the statistics are gradually declining in recent times, however, despite the many campaigns by individuals, government, and non-governmental organisations, the menace is yet to be abolished (Nnanatu, 2021).

Despite the efforts by the United Nations Children's Fund (UNICEF) and other partners to eradicate the prevalence of Female Genital Mutilation (FMG), statistics show that Nigeria ranks third highest among practicing countries in the world (Uneze, 2019). According to a 2019 report by the United Nations Population Fund, FGM is traditionally performed by a designated community member (using rudimentary tools like razor blades, often without anaesthetic or antiseptics) or by medical practitioners known as "medicalised FGM". Albeit, not devoid of critical health implications. The World Health Organisation (WHO) and partners are harmonising efforts by the Nigerian Government to put a stop to the medicalisation of Female Genital Mutilation (FGM) (WHO, 2020). During the International Women's Day celebration on March 8, 2020, many individual advocates for the rights of the girl child, and women as well as non-governmental organisations sensitised and preached against the practice.

Identifying the types of female genital mutilation, the World Health Organisation (2020) reported that there are 4 types:

- **Type 1:** This is known as the partial or total removal of the clitoral glans (the external and visible part of the clitoris, which is a sensitive part of the female genitals), and/or the prepuce/ clitoral hood (the fold of skin surrounding the clitoral glans).
- **Type 2:** this is the partial or total removal of the clitoral glans and the labia minora (the inner folds of the vulva), with or without removal of the labia majora (the outer folds of skin of the vulva).
- **Type 3:** Also known as infibulation, this is the narrowing of the vaginal opening through the creation of a covering seal. The seal is formed by cutting and repositioning the labia minora, or labia majora, sometimes through stitching, with or without removal of the clitoral prepuce/clitoral hood and glans (Type I FGM).

• **Type 4:** This includes all other harmful procedures to the female genitalia for non-medical purposes, e.g. pricking, piercing, incising, scraping, and cauterizing the genital area.

Related Research

Female Genital Mutilation: Challenges and Implications for Women

Many studies on genital mutilation have been identified in literature. A study assessed health consequences, implications, and complications of female genital mutilation and established that socio-cultural and economic consequences, as well as medical implications, are connected with female genital mutilation. Therefore, an end to the FGM practice is a way to address these consequences, and elimination of FGM is achievable through efficiently coordinated directing resources (interventions through cultural and ethnical proponents) (Klein et al., 2019).

Another study by Ismail et al. (2017) investigated the impact of type I and II FGM/C on the sexual function of Egyptian women and found that female sexual dysfunction (FSD) is associated with FGM, and most of the women underwent type I cutting that were done by mainly physicians, while type II was mostly done by midwives. The two types of cuttings were not statistically different in the light of total and individual domain scores except for the pain domain.

A 2015 study in the Kurdistan Region of Iraq (KR-I) reported a high rate of mutilation among mothers than daughters. This shows that there is an increasing level of awareness and elimination of the practice among the cities in the region, though Sulaymaniyah reported the highest percentage of mutilation for mothers, while Erbil reported the highest percentage for girl child genital mutilation (High Council of Women Affairs, 2015).

A similar study reported that the majority of the surveyed women in Calabar, Nigeria underwent type I of FGM, cultural rite/ was the drive behind the FGM practice that were mostly performed by traditional birth attendants. Women in their forties were mostly mutilated and these were among the low social class population. The result further showed that the mutilated parturients experience first-degree perineal tear, primary postpartum haemorrhage, and delayed the second stage of labour (Njoku et al., 2020).

As reported by a 2020 systematic review of researches carried out from 2013-2017, there is a relationship between FGM and sexual dysfunction among women that were mutilated in Ethiopia (Fite et al. 2020) align with another review which established that distorts the sexual functions of mutilated women (Pérez-López et al., 2020). A study compared the perinatal outcomes of genitally mutilated women (FGM) who underwent clitoral reconstruction (CR) with those that did not undergo CR. Results established that women who underwent CR after FGM have reduced risk of episiotomy by 0.15 times, and also have intact perineum after delivery by 3.46 times, unlike genitally mutilated women that did not experience CR. This finding implies that clitoral construction is a way of reducing the pains, or health implications of FGM in women (Madzou et al., 2020).

Consistent with the 2015 High Council of Women Affairs (2015) report, in Yemen, it was reported that more women were mutilated, unlike their daughters. The women are against the practices and want an end to it, this accounts for its low prevalence among daughters. Family marriage, poverty, educational inequalities, and older age among other factors account for FGC's high practice in Yemen. Indications from these results are that the younger generation of women in Yemen has a negative attitude towards FGM/C. Thus, awareness, women empowerment, and girl child education can help in discontinuing the practice (Alosaimi et al., 2019).

On the prevalence of FGM in Egypt, major participants and deciders of the practice of FGM on daughters were mothers, and type II was the most common type of FGM in the surveyed population (Elbendaryet al., 2020). These results indicate that many women still have reasons for the practice, and despite the law, would go ahead with their intentions.

Similarly, a 2019 study carried out in the southeast region of Nigeria reported that type II mutilation was prevalent. An identified health implication of FGM among the respondents is perineal trauma (Anikwe et al., 2019). This result indicates that FGM is very much prevalent in some areas of the southeast region, and much work needs to be done to address the phenomenon. Another study carried out in the northeast region of Nigeria reported that the majority of the surveyed women underwent type1, and these were mostly done by traditional healers and traditional birth attendants for cultural or religious reasons (Attah et al., 2020). This finding alludes to the submission that the FGM/C practice is still prevalent in Nigeria, and it should be addressed religiously.

Another study among the Kenyan-Somali population revealed that legal/policy factors, health system factors, and patient actors affect the health-seeking behaviour of victims of FGM. This shows that victims of FGM have issues seeking health and health information on the health implications of the practice they experienced (Kimani, 2020). A review identified the FGM studies in Africa revolve around the health implications of FGM/C, attitudes, prevalence, and perpetrators (Obiora et al., 2020). These are recurring themes in FGM/C studies over the years, and this is an indication that the practice is still very much prevalent in the country, and that more efforts are required to nib this harmful practice in the board. A recent study examined how FGM/C batters the genital self-image of women in Saudi Arabia. Results showed that the women, irrespective of their FGM/C status had a similarly positive genital self-image, however, educational level and status inform variance in female genital self-image is characteristic of many women in the country.

Addressing the level of knowledge of paediatricians at Phoenix Children Hospital, Denver Health, Children's Hospital Colorado, and Pediatric Child Abuse listserv networks, about FGM/C. Results indicated that a low percentage of the surveyed paediatricians are knowledgeable about FGM/C (Basel, 2020). This result point to factors to be considered in addressing the practice, especially as paediatricians would have roles to play in using medicalisation to curb FGM/C. A similar study on genital self-image revealed that educational videos watched and increased knowledge of female genital anatomy among the girls have a significant association (Fernando and Sharp, 2020). This result portends that interactions with girls through videos on the health implications of FGM/C will significantly aid the desired awareness about the practice. This awareness among teenagers will go a long way in eradicating the practice.

An assessment of the political implications of addressing FGM/C with cultural bias in Northern Ireland indicated that the needed resources were lacking in the affected communities, and this deliberate politicisation was aimed at reinforcing global North gender norms on all forms of non-therapeutic genital cutting (MacNamara et al., 2020).

This result gives a lead to decision-makers' influence on the curb of FGM/C. By implication, if, and when people that support the practice are in positions to make laws and policies to curb it, their cultural bias often comes to play, and they deliberately do nothing to criminalise, and or end the practice.

Besides, a study on the Australian women population revealed that there is poor knowledge of FGM/C, poor maternity care, as well as compliance with clinical guidelines for FGM/C among the women (Shukralla and McGurgan, 2020). This result aligns with previously reviewed literature findings that healthcare professionals' knowledge about FGM/C goes a long way in addressing the prevalence and implications of FGM/C. Similarly, a study in Australia reported that many genitally mutilated migrant women are being examined and engaged in a discussion over their FGM/C status, after which de-infibulation of type 3 FGM/C under local anaesthetic in the clinic is performed (Jones, 2019).

Another study reported a high FGM prevalence in Egypt, the identified risk factor is educational decadence. The continued prevalence of the practice is driven by religious, social, and hygienic factors that were responsible for the prevalence of FGM and these must be clinically addressed to eradicate the practice (Arafa et al., 2020). A study assessed the sexual function's implications of FGM/C among women in Egypt and indicated that there was no statistically significant difference in sexual function between both mutilated and unmutilated women. In addition, the type of mutilation does not predict sexual function between the two groups (Abbas et al., 2020). This finding implies that FGM is not associated with sexual dysfunction among the surveyed population, contrary to earlier findings from the Egyptian population that emphasised the sexual dysfunction implications of female genital mutilations on women and girls. More also, a study reported that urinary tract infections are associated with FGM (Millet et al., 2019). Shreds of evidence from findings under this section indicate that female genital mutilation practice is still very much prevalent in many countries, and negative health implications are experienced by cut women and girls.

Preventing Female Genital Mutilation/Cuttings

While the rate of female genital mutilation continues to increase, various medical, socio and legal measures are being put in place to eliminate the injurious act against women and girls. It was reported that FGM could be corrected through surgical reconstruction. This reconstruction could reduce the FGM-induced pain, treat symptoms of FGM, and possibly restore sexual functions to enjoyable capacity (Welch et al., 2020). Negative attitude towards the practice is recorded across populations as painful intercourse, mother-in-law's decision, education, and encounters with health professionals inform the attitude of the women population (Agboli, 2020). In many African societies, men are at the centre of making decisions for everyone with little or no considerations from those directly or indirectly affected by those decisions. A 2020 study reported that women are more culpable of supporting the practice, while men are culpable, though many cultural decisions are driven by women (Wander et al., 2020).

Besides, Nina et al., (2020) found that reduction of pain and individualisation of FGM practice as the outcome of FGM medicalisation as a means of eradication FGM in Egypt (Nina et al., 2020). This implies that when mothers have the opportunity to approach medical experts for FGM for their girl child, they will be exposed to the health hazards related to the practice, and will be significantly discouraged. Ziegler and Reeves (2020) reported that mutilated women should be availed a patient-centred and culturally sensitive care, and be made to undergo therapy, surgical correction (de-infibulation) treatment, and counselling procedures. This demonstrates that remedial attempts can help mutilated women to regain their self-worth, and sexual functions with little or no pain and, increased sexual pleasure.

In addressing the FGM/C menace across the globe, all efforts by stakeholders must be appropriately channelled. Though, efforts in the health sector are commendable in FGM/C treatment and prevention, however, more drastic steps are still required in averting and reporting FGM/C, strengthening systematic training of HCP, particularly in countries of migration. (Ziyada and Johansen, 2020). Counselling is one of the means through which the FGM/C practice can be eliminated. A study demonstrated a counselling model for families with daughters that are at risk of FGM/C with the following steps: the identity of family's country of origin, exposure to FGM/C, FGM/C-related services offer for affected women, female children risk assessment, health implications, and U.S. legal repercussions discussion and understanding, and lastly, reference of children at risk to child services as needed. A designed tool kit to aid the implementation of this model included the following steps: a list of high prevalence

countries, considerations for identifying at-risk patients, information on the health consequences of FGM/C, legal resources, and practices for documentation in medical records (Beausang, 2020).

Further demonstrated, health professionals were identified as essential in FGM/C elimination across populations. Their knowledge of the practice in the US, how to address it and cater for victims were not covered in the nursing curriculums in the nursing schools. Thus, few U.S. nursing students are learning to provide culturally congruent care to women and girls at risk for FGC/M (Donnenwirth et al., 2020). This finding further evidenced the lack of adequate knowledge of FGM/C among health workers, and this remains a big barrier to its prevention, treatment, and elimination among populations. The result further demonstrates that FGM/C is alien to most European nations, perhaps it characterises African communities.

An exploratory study reported that female education, population density, and laws banning FGM/C are associated with the prevalence of FGM/C (Engelsma et al., 2020). This implies that women's education should be improved and laws and policies should be enshrined to eliminate the practice. Another 2020 survey established that there is the need to program structural adaptations of the healthcare system to prevent, record, monitor, treat and follow up cases through a systematically build synergy between the healthcare, social services, and education sectors (Ugarte-Gurrutxaga, Molina-Gallego, Mordillo-Mateos, Gómez-Cantarino, Solano-Ruiz, and Melgar de Corral, 2020).

This review established the FGM/C practice is still prevalent across the world despite efforts to get it nib in the board. Many studies reviewed were carried out in Egypt, and indication that the country has a high level of prevalence. Also, this review identified types I and II as the most experience mutilation type among women across all populations. Religious, cultural, social, and other individual factors were recorded to account for the prevalence of the practice. Despite the enactment of laws, the practice continues across populations. This development can be associated with the politicisation of the elimination of the practice. Most importantly, this review established that FGM/C practice is prevalent in Nigeria, and not enough research has been done to critically examine FGM/C-related issues and implications.

Specifically, known to this researcher, no study had investigated the obstetrics Obstetric Outcomes and Sexual Function implications of FGM/C among women in Ibadan, southwest Nigeria. This is the gap in literature that this study aims to fill by gaining perspective and knowledge on the implications of FGM/C among the population.

Effects of Genital Mutilation on Reproductive Health

The reproductive health of women requires critical attention and observation as it determines population growth and mortality rate among other healthcare issues. Some identified reproductive health implications were identified by the United Nations Population Fund (2019) as presented below:

1. FGM is injurious and deadly: Mutilated female risk shock, haemorrhage, terrible injury, and infections all of which can lead to death in severe cases.

2. Medical practitioners performed FGM is as well unsafe: Medicalisation is an issue of discourse in recent times. However, it remains an unsafe practice that can affect the reproductive life cycle of victims.

3. Lifelong health issues and complications: Longlife health implications are associated with FGM, and this affects reproductive health in no little measure. Some of these are susceptibility to infections, cysts, infertility, scarring, abscesses, and other tissue damage. Menstrual pains, urinary abnormality during intercourse.

4. Life-threatening childbirth complications: Mutilated women have complications during pregnancy and childbirth. Child delivery becomes unnecessarily painful, leads to difficulty in virginal delivery, and often leads to caesarean section interventions to birth children. Thus, maternal mortality partly occurs due to FGM-induced delivery complications.

5. Mental health implication: Childbirth is a serious procedure that can affect pregnant women mentally and psychologically if not well-handled. However, mutilation makes it a more harrowing experience.

In addition, reported that obstetrical complications, and psychological problems, as well as bacterial and viral infections, are the health implications of FGM, all of which impair reproductive health (Klein et al. 2018). This aligns with findings that bleeding, urine retention, and genital tissue swelling were the most common immediate implications, while urinary tract infections bacterial vaginosis dyspareunia, prolonged

labour caesarean section, and difficult delivery surfaces during reproductive years (Berg et al, 2014).

The role of the nurse in prevention and care

Nurses are patient advocates they take patients through the health care system. Efficiency in playing this role results in optimal health outcomes. They are caregivers who are responsible for hands-on care, offer guidance about healthy living, medications, immunisations, child care, nutrition, and safety (Collins, 2008). Nursing encompasses autonomous and collaborative care of individuals of all ages, families, groups, and communities, sick or well, and in all settings. They promote health, prevent illness, and treat ill, disabled, and dying individuals in society. They play vital roles in the healthcare system, supportive roles to doctors, and caregiving roles to patients. Arguably, they are most available to meet patients' needs, and their assessment is required for onward medical actions and recommendations from the doctors (WHO, 2021). Among other health issues prevalent in the healthcare system and society, nurses play vital roles in preventing female genital mutilation and caring for the victims.

The place of medical professionals in healthcare and healthcare interventions cannot be over-emphasised. Nurses play a vital role in the prevention and cure of diseases. These roles are amplified with the increasing need to address critical life-threatening health situations as a nurse as saddled with the responsibility of encouraging and inspiring patients/people to receive preventative services such as counseling and precautionary medications, screenings, and engagement in healthy lifestyles and ultimately live longer lives (Collins, 2008). Nurses function as caregivers who provide health education, identify patients that are at risk, facilitate healthcare access, and educate the community. They also provide health information through physical and virtual settings, direct people to local resources, and give out health and wellness information (Reinhard, Given, Petlick et al., 2008).

A 2018 survey reported nurses were trained to manage short and long-term implications of FGM, to enable them to coordinate care for mutilated women, render surgical interventions (Crawford and Catts, 2018). This implies that nurses have roles to play in the prevention, and treatment of FGM-related health issues. Another study reported that trained nurses have required potentials to stabilise and manage the health

system, and in the Czech Republic, they are needed to efficiently operate the field of community health care (Tothova, Bártlová, Sedová, and Treslova, 2014). Similarly, Fooladi (2015) reported that a successful implementation of health plans, programs, and schemes partly depends on nurses as they are the foundation of social healthcare systems across the globe. Specifically, in Iran, nurses were reported to play a vital role in public wellbeing, and as such urged to be efficient in discharging their duties. In addition, Ayoola and Yusuf (2016) reported that FGM violates the girl/woman's rights, and nurses, the largest workforce in the health system, can influence a behavioural change to end FGM/C, as well as drive health and quality of life of girls and women.

This study covers the types of Female Genital Mutilation undergone by women in Ibadan metropolis, their mode of childbirth, and the reproductive health problems associated with genital mutilation among women, and the perception of women on female genital mutilation. This study is restricted to women between the ages of 18-49, that is literate, without any health issues, are not lactating mothers, and are sexually active in the last 3 months, in the five urban local government areas in Ibadan- Ibadan North, Ibadan North-East, Ibadan North-West, Ibadan South-East, and Ibadan South-West.

CHAPTER III

Methodology

Research Designs

This study was conducted with a cross-sectional study design.

3.2 The study site

3.2.1. Location description

Nigeria is the most populous country in West Africa with over 200 million people, located on the Gulf of Guinea in the Atlantic Ocean. Nigeria is a country with rich cultural values, beliefs, and heritage. It is made up of 36 states (divided into six geopolitical zones) and the Federal Capital Territory, the seat of power of the nation in Abuja. Nigeria borders the Benin Republic in the west, the Niger Republic in the north, the Republic of Chad in the northeast, and Cameroon in the east. English is adopted as the official language, while the national language debate is yet to be addressed. There are three religions recognised by the constitution of Nigeria. These are Christianity, Islam, and African Traditional Religion. The federation is a multilingual and ethnic nation with over 500 indigenous languages and over 250 ethnic groups, of which the three major and largest are Hausa, Igbo, and Yoruba. Oyo state is one of the six states of the southwest geopolitical zones, and Ibadan is its capital. Ibadan is an ancient city, rich in Yoruba culture, blessed with industrious men and women, and a large landmass for agriculture, real estate, and industrialisation. It comprises 11 local government areas.

Population and Sampling

The population of this study is women of reproductive age in Ibadan, Nigeria, who are between the ages of 18 and 49 and have given birth at least once. There is no statistical figure available for this population. Thus, this population is indeterminate.

Sample size determination

Sampling can be described as the process and technique of selecting a portion of the population that is representative enough of it. Ibadan metropolis is made of eleven (11) local government areas. These are the 5 urban local government areas: Ibadan North, Ibadan North-East, Ibadan North-West, Ibadan South-East, and Ibadan South-West, and

the six (6) semi/rural local government areas: Akinyele, Lagelu, The list of all the 11 local government areas in Ibadan is the sample frame from which the study sample will be drawn.

Ibadan consists of 5 urban areas (Ibadan North, Ibadan North-East, Ibadan North-West, Ibadan South-East, and Ibadan South-West). From each urban area, 4 primary health centers were randomly selected. Study data were collected from a total of 20 primary health centers. Sample size was calculated using a Cochran formula (n¹/₄z2pq/d2). The estimated prevalence was based on 24.8%, for FGM obtained from a previous study in Nigeria (Owojuyigbe et al., 2017). The minimum sample size of this study was n ¹/₄ 152. 167 women were recruited to allow for 10% of missing data. Since six participants did not answer all the questions in the survey form, these six forms were not included in the study. The sample group of our study consisted of 161 women.

Data were collected from women who agreed to participate in the study at the health centers determined between 05.08.2020 and 20.10.2020. In all, 200 women who had visited the primary health centers for medical care or accompanying other patients was selected as sample for the study.

Inclusion criteria: Teenagers and women between the age of 18 and 49, sexually active in the last 3 months, who are literates, have no critical health challenges, not pregnant and lactating mothers, not psychiatric illness patients are selected to participate in the study.

Exclusion criteria: Girls below the age of 18 and women above the age of 49, and who are illiterate will be excluded from the study. Also, women with critical health issues, pregnant and lactating mothers, psychiatric illness patients, and women with no sexual activity in the last 3 months, and individuals who do not want to participate in the study were excluded.

Data Collection Tools

The questionnaire consists of 4 parts.

Part I: There are 9 questions that include questions that determine the sociodemographic characteristics of the participants.

Part II: It contains questions that determine the types of FGM to which the participants are exposed.

Part III: includes questions identifying mode of delivery and reproductive health problems associated with female genital mutilation.

Part IV: The place where genital mutilation is done, by whom it is done, and the questions that determine women's perceptions of FGM.

Questionnaire Evaluating Genital Mutilation: We used a detailed custom questionnaire to conduct this study. This questionnaire was created by the researchers of this study and using previous research (Rosen et al., 2000; Abdulcadir, et al., 2017; Ismail et al., 2017; Yassin et al. 2018; Davis and Jellins 2019). Data was collected using a structured questionnaire between November 2020 and January 2021. The questionnaire is segmented into the introductory section which gives detailed information about the study, requests for consent to participate in the study, and assurance of confidentiality of the information provided by the respondents.

Data Collection Procedures

The researcher collected data for this survey with copies of questionnaire upon visits to the primary health centres selected for this study. Questionnaires were collected by the researcher by face-to-face method. The world all over is currently on the slow with the outbreak of the Coronavirus pandemic.

Since the questions were created by the researchers, the pre-administered questions on 10 women with FGM and 10 women without FGM were reviewed in order to criticize the comprehensibility and answerability of the questions. The 20 women in the pre-application were not included in the sample group.

Data collection for this study was expressly put on hold for several months while the nation was locked down, and unscheduled visits to health facilities were prohibited. This was the major challenge during the fieldwork. At the end of the data collected, the researcher was able to retrieve 167 copies of the questionnaire out of the 200 administered copies. During sorting and data entry, 6 copies that were not adequately filled were removed, while the remaining 161 copies were certified adequate for data analysis. Then, among all the questionnaires, those with and without genital mutilation were divided into two groups and evaluated.

Data Analysis Procedures

Elicited data was analysed using Statistical Package for Social Science version 20. The results were reported using percentage count and Chi-square test. Frequency analysis was used to determine the socio-demographic characteristics. The chi-square test was used to test associations between the categorical variables. The level of significance for the analysis was a p-value of < 0.05. The level of confidence 95%, sampling error of 5%.

Ethical considerations

The researcher received ethical approval from the board before proceeding with the study. Also, a letter of approval for data collection was collected from Medical in each of the selected local government areas selected for this study (30.07.2020-2020/81/1138). The consent of participants was obtained before enlisting them to participate in the study.

CHAPTER IV

Findings

Table 1.

Distribution of descriptive characteristics (n=161)

| Variables | Number (n) | Percentage (%) | | |
|-----------------------------------|------------|----------------|--|--|
| Age | | | | |
| 18-28 years | 72 | 44.7 | | |
| 29-39 years | 70 | 43.5 | | |
| 40-49- years | 19 | 11.8 | | |
| Religion | -1 | | | |
| Christianity | 81 | 50.3 | | |
| Islam | 80 | 49.7 | | |
| Economic Situation | · | | | |
| None | 1 | .6 | | |
| Income lower than expenses | 148 | 91.9 | | |
| Income is equal to expenditure | 10 | 6.2 | | |
| Income more than expenditure | 2 | 1.2 | | |
| Educational Level | | | | |
| Secondary | 14 | 8.7 | | |
| Higher | 147 | 91.3 | | |
| Number of Children | · | | | |
| None | 47 | 29.2 | | |
| 1 | 45 | 28.0 | | |
| 2 | 34 | 21.1 | | |
| 3 | 19 | 11.8 | | |
| 4 | 12 | 7.5 | | |
| 5 | 4 | 2.5 | | |
| Working Status | | | | |
| Yes | 149 | 92.5 | | |
| No | 12 | 7.5 | | |
| How old were you when you married | | | | |
| 18-28 years | 96 | 59.6 | | |
| 29-39 years | 6 | 3.7 | | |
| 40-49 years | 59 | 36.7 | | |
| Were you mutilated | | | | |
| Yes | 84 | 52.2 | | |
| No | 77 | 47.8 | | |
| Mutilation Types | | | | |
| Type I: Clitoridectomy | 65 | 77.3 | | |
| Type II: Excision | 19 | 22.7 | | |

Socio-demographics variables of the women are shown in Table 1. The majority (59.6%) of the women are between the ages of 18-28 years, while the majority of them married between the age bracket; 50.3% are Christian, while 49.7% are of the Islamic religion; and the majority (91.9%) of the women earn income lower than their expenses. The majority (91.3%) of the women have higher educational qualifications; the majority (28%) of the women have one child; the majority (92.5%) of the women are employed.

Figure 1.



Figure 1 include the proportion of women with genital mutilation (52.2%) and without genital mutilation (47.8%).

Figure 2. *Mutilation Stage*



Figure 2 presents the types (stage) of female genital mutilation undergone by mutilated women in Ibadan, Nigeria. Results showed that the majority (77.3%) of the surveyed mutilated women in Ibadan, Nigeria underwent the Type I: Clitoridectomy; partial or complete excision of the clitoris and/or the prepuce; while 22.7% underwent the Type II: Excision; partial or complete removal of the clitoris and labia minora, with or without removal of labia majora.

Table 2.

Evaluation of Obstetric, Gynecologic and Sexual Problems in Mutilated Women (n=84)

| Obstetric, Gynecologic and Sexual Problems | n | % |
|---|----|------|
| Give birth through normal vaginal delivery | 68 | 81 |
| Give birth through all operative vaginal delivery | 2 | 2.4 |
| Give birth through forceps | 7 | 8.3 |
| Give birth through vacuum | 3 | 3.6 |
| Give birth through caesarean section | 6 | 7.1 |
| Experience morbidity | 1 | 1.2 |
| Experience episiotomy | 16 | 19 |
| Experience 3rd/4th degree tear | 16 | 19 |
| Experience PPH: postpartum haemorrhage | 57 | 67.9 |
| Experience Neonatal outcome | 15 | 17.9 |
| Experience Admission to SCN (special care nursery | 12 | 14.3 |
| Experience an infection of episiotomy | 6 | 7.1 |
| Experience difficulties in cervical examination | 22 | 26.2 |
| Experience dysmenorrhea | 66 | 78.6 |
| Experience recurrent urinary and vaginal infections | 27 | 32.1 |
| Undergo surgery to release labial adhesion | 3 | 3.6 |
| Experience discomfort or pain following vaginal penetration | 63 | 75 |
| Reach orgasm (climax) during sexual intercourse | 5 | 6 |
| Need lubrication in every sexual intercourse | 63 | 75 |
| Bleeding occur during and / or after sexual intercourse | 67 | 79.8 |
In summary, for the obstetric, gynecologic and sexual problems of the mutilated group of women, majority (81%) of them give birth through normal vaginal delivery, they (67.9%) experience postpartum haemorrhage, (78.6%) experience dysmenorrhea, (75%) experience discomfort or pain following vaginal penetration, (79,8%) experience bleeding during and / or after sexual intercourse, and (75%) of the mutilated women need lubrication in every sexual intercourse (Table 2).

Table 3.

Evaluation of sociodemographic characteristics of women with and without genital mutilation

| Descriptive Characteristics | | Mutilated Group (n=84) | | Unmutilated Group (n=77) | | X ² | р |
|-----------------------------|----------------|------------------------------|------|--------------------------------|------|----------------|-------|
| | | | % | n | % | | |
| Age | 18-28 years | 36 | 42.9 | 36 | 46.8 | 16.366 | 0.001 |
| | 29-39 years | 30 | 35.7 | 40 | 51.9 | | |
| | 40-49 years | 18 | 21.4 | 1 | 1.3 | | |
| Number of Children | None | 12 | 14.3 | 35 | 45.5 | 42.381 | 0.001 |
| | 1 | 22 | 26.2 | 23 | 29.9 | | |
| | 2 | 16 | 19 | 18 | 23.4 | | |
| | 3 | 18 | 21.4 | 1 | 1.3 | | |
| | 4 | 12 | 14.3 | - | - | | |
| | 5 | 4 | 4.8 | - | - | | |
| Marital Age | 18-28 years | 60 | 71.4 | 36 | 46.8 | 20.701 | 0.001 |
| | 29-39 years | 6 | 7.1 | - | - | | |
| | 40-49 years | 18 | 21.4 | 41 | 53.2 | | |
| Religion | Islam | 46 | 54.2 | 34 | 44.2 | 1.808 | 0.179 |

| | Christianit y | 38 | 45.2 | 43 | 55.8 | | |
|-------------------|--|----|------|----|------|-------|-------|
| Economic Level | None | 1 | 1.2 | - | - | 2.809 | 0.422 |
| | Income lower than expenses | 76 | 90.5 | 72 | 93.5 | - | |
| | Income is equal to expenditur e | 5 | 6 | 5 | 6.5 | - | |
| | Income more than expenditur e | 2 | 2.4 | - | - | - | |
| Educational Level | Secondary | 8 | 9.5 | 6 | 7.8 | 0.152 | 0.697 |
| | Higher | 76 | 90.5 | 71 | 92.2 | | |
| Working Status | Yes | 79 | 94 | 70 | 90.9 | 0.574 | 0.449 |
| | No | 5 | 6 | 7 | 9.1 | | |

*Statistically significant difference by Chi Square test

The analysis in Table 3. shows enough evidence to suggest an association between age (group) and mutilation status. Thus, we can state that is an association between age (group) and mutilation status among the surveyed women ($X^2(2) > = 16.366$, p = 0.001). Also, the analysis shows enough evidence to suggest an association between number of children and mutilation status. Thus, we can state that is an association between number of children and mutilation types among the surveyed women ($X^2(5) > = 42.381$, p = 0.001). In our data, it be concluded that number of children of the mutilated group was statistically significantly higher than the unmutilated group (U = 452.5, p = .001).

Also, there is enough evidence to suggest an association between marital age and mutilation status. Thus, we can state that is an association between marital age and mutilation status among the surveyed women (X2(2) > = 20.701, p = 0.001). Results showed that the unmutilated group have higher marital age than the mutilated group. The group with the highest mean rank (92.96), in this case, the unmutilated group had the higher marital age than the mutilated group (70.04). Hence, from our data, it can be concluded that the marital age of the unmutilated group was statistically significantly higher than the unmutilated group (U = 2313, p = .001). Also, there is not enough evidence to suggest an association between religion and mutilation status. Thus, we can state that no association was found between religion and mutilation status among the surveyed women (X2(1)> = 1.808, p = 0.179).

Results showed have not association between economic level and mutilation status. Thus, we can not state that association was found between economic level and mutilation status among the surveyed women (X2(3)> = 2.809, p = 0.422). Also, results showed have not association between educational level, work status and mutilation status. between work status and mutilation status among the surveyed women ($X^2(1)$ > = 0.574, *p* = 0.449).

| | Т | a | bl | le | 4. |
|--|---|---|----|----|----|
|--|---|---|----|----|----|

Evaluation of women with and without genital mutilation according to the mode of delivery

| Mode of delivery | | Mutila Group (n=84 | Mutilated Group (n=84) | | Unmutilated Group (n=77) | | р |
|--|-----|--------------------------|------------------------------|----|--------------------------------|--------|-------|
| | | n | % | n | % | | |
| give birth through normal vaginal delivery | Yes | 68 | 81 | 41 | 53.2 | 15.265 | 0.001 |
| | No | 16 | 19 | 36 | 46.8 | | |
| give birth through all operative vaginal delivery | Yes | 2 | 2.4 | - | - | 1.855 | 0.175 |
| | No | 82 | 97.6 | 77 | 100 | | |
| give birth through vacuum | Yes | 3 | 3.6 | - | - | 2.816 | 0.095 |
| | No | 81 | 96.4 | 77 | 100 | | |
| give birth through forceps | Yes | 7 | 8.3 | 7 | 9.1 | 0.029 | 0.866 |
| | No | 77 | 91.7 | 70 | 90.9 | | |
| give birth through | Yes | 6 | 7.1 | 1 | 1.3 | 3.326 | 0.070 |
| caesarean section (total) | No | 78 | 92.9 | 76 | 98.7 | | |

*Statistically significant difference by Chi Square test

Results presented in Table 4. shows a statistically significant difference with of normal vagina delivery between mutilated and unmutilated groups (F(1,159) = 15.265, p = .001). Results further indicated no statistically significant difference in the with the of operative vaginal delivery between mutilated and unmutilated groups (F(1,159) = 1.855, p = .175). Also, the ANOVA result no statistically significant difference with the of birth through vacuum delivery between the mutilated and unmutilated groups. There was no statistically significant difference with the operative vaginal delivery, vacuum delivery and caesarean section delivery between groups (p > 0.05).

Table 5.

| Obstetric and Gynaecologic Problems | | Mutilated Group (n=84) | | Unmutilated Group (n=77) | | X ² | р |
|--|-----|------------------------------|------|-----------------------------|------|----------------|-------|
| | | N | % | n | % | | |
| experience morbidity | Yes | 1 | 1.2 | 8 | 10.4 | 6.627 | 0.011 |
| | No | 83 | 98.8 | 69 | 89.6 | | |
| experience episiotomy | Yes | 16 | 19 | 10 | 13 | 1.084 | 0.299 |
| | No | 68 | 81 | 67 | 87 | | |
| experience 3rd/4th | Yes | 16 | 19 | 16 | 20.8 | 0.075 | 0.785 |
| degree tear | No | 68 | 81 | 61 | 79.2 | | |
| experience PPH: | Yes | 57 | 67.9 | 13 | 16.9 | 56.983 | 0.001 |
| haemorrhage | No | 27 | 32.1 | 64 | 83.1 | | |
| experience Neonatal | Yes | 15 | 17.9 | 9 | 11.7 | 1.199 | 0.275 |
| outcome | No | 69 | 82.1 | 68 | 88.3 | | |
| experience Admission | Yes | 12 | 14.3 | 14 | 18.2 | 0.446 | 0.505 |
| nursery | No | 72 | 82.1 | 63 | 81.8 | | |
| experience an infection | Yes | 6 | 7.1 | 9 | 11.7 | 0.976 | 0.325 |
| ot episiotomy | No | 78 | 92.9 | 68 | 88.3 | | |
| | Yes | 22 | 26.2 | 17 | 22.1 | 0.366 | 0.546 |

Evaluation of obstetric and gynaecological problems of women with and without genital mutilation

| experience difficulties in cervical examination | No | 62 | 73.8 | 60 | 77.9 | | |
|--|-----|----|------|----|------|--------|-------|
| experience | Yes | 66 | 78.6 | 37 | 48.1 | 17.833 | 0.001 |
| dysmenormea | No | 18 | 21.4 | 40 | 51.9 | | |
| experience recurrent | Yes | 27 | 32.1 | 31 | 40.3 | 1.142 | 0.287 |
| infections | No | 57 | 67.9 | 46 | 59.7 | | |
| undergo surgery to | Yes | 3 | 3.6 | - | - | 2.816 | 0.095 |
| release labial aditesion | No | 81 | 96.4 | 77 | 100 | | |

*Statistically significant difference by Chi Square test

Results presented in Table 5. shows a statistically significant difference with morbidity between the mutilated and unmutilated groups (F(1,159) = 6.627, p = .011). It also shows a statistically significant difference with the postpartum haemorrhage between the mutilated and unmutilated group (F(1,159) = 56.983, p = .001). Our result shows a statistically significant difference in the dysmenorrhea between the mutilated and unmutilated groups (F(1,159) = 17.833, p = .001).

There was no statistically significant difference in episiotomy, 3rd/4th degree tear, neonatal outcome, admission to SCN (special care nursery), infection of episiotomy, difficulties in cervical examination, recurrent urinary and vaginal infections, surgery to release labial adhesion between groups (p>0.05).

Table 6.

| Sexual Problems | | Mutilated Group (n=84) | | Unmutilated Group (n=77) | | X ² | р |
|---------------------------|-----|---------------------------|----|-----------------------------|------|-----------------------|-------|
| | | n | % | n | % | | |
| experience discomfort or | Yes | 63 | 75 | 18 | 23.4 | 110.367 | 0.001 |
| penetration | No | 21 | 25 | 59 | 76.6 | | |
| reach orgasm (climax) | Yes | 5 | 6 | 52 | 67.5 | 34.609 | 0.001 |
| during sexual intercourse | No | 79 | 94 | 25 | 32.5 | | |

Evaluation of obstetric and sexual problems of women with and without genital mutilation

| need lubrication in every sexual intercourse | Yes | 63 | 75 | 15 | 19.5 | 91.654 | 0.001 |
|---|-----|----|------|----|------|--------|-------|
| | No | 21 | 25 | 62 | 80.5 | | |
| bleeding occur during | Yes | 67 | 79.8 | 10 | 13 | 86.271 | 0.001 |
| intercourse | No | 17 | 20.2 | 67 | 87 | | |

Results presented in Table 6. shows a statistically significant difference in discomfort or pain following vaginal penetration between the mutilated and unmutilated groups. There was a statistically significant difference in discomfort or pain following vaginal penetration between groups (F(1,159) = 110.367, p = .001). Result shows a statistically significant difference in orgasm (climax) during sexual intercourse between the mutilated and unmutilated groups. There was a statistically significant difference in orgasm (climax) during sexual intercourse between groups (F(1,159) = 34.609, p = .001). In addition, result shows a statistically significant difference in "lubrication in every sexual intercourse" between the mutilated and unmutilated group. There was a statistically significant difference in "lubrication in every sexual intercourse" between the mutilated and unmutilated group. There was a statistically significant difference in "lubrication in every sexual intercourse" between the mutilated and unmutilated group. There was a statistically significant difference in "lubrication in every sexual intercourse" between the mutilated and unmutilated group. There was a statistically significant difference in "lubrication in every sexual intercourse" between groups (F(1,159) = 91.654, p = .001). Result shows a statistically significant difference in "lubrication in every sexual intercourse" between groups (F(1,159) = 91.654, p = .001). Result shows a statistically significant difference in "lubrication difference in "bleeding during and /or after sexual intercourse" between the mutilated and unmutilated groups. There was a statistically significant difference in "bleeding during and /or after sexual intercourse" between the mutilated and unmutilated groups. There was a statistically significant difference in "bleeding during and /or after sexual intercourse" between the mutilated and unmutilated groups. There was a statistically significant difference in "bleeding during and /or after sexual int

| Descriptive Characteristics | | Muti Ty | lation pe 1 | Muti Type | lation 2 | X^2 | р |
|-----------------------------|--------------------------------|------------|----------------|--------------|-------------|--------|-------|
| | | n | % | n | % | - | 1 |
| Age | 18-28 years | 27 | 41.5 | 9 | 47.4 | | 0.783 |
| | 29-39 years | 23 | 35.4 | 7 | 36.8 | 0.490 | |
| | 40-49 years | 15 | 23.1 | 3 | 15.8 | - | |
| Number of | None | 8 | 12.3 | 4 | 21.1 | | 0.296 |
| Children | 1 | 15 | 23.1 | 7 | 36.8 | - | |
| | 2 | 14 | 21.5 | 2 | 10.5 | 6.105 | |
| | 3 | 16 | 24.6 | 2 | 10.5 | - | |
| | 4 | 10 | 15.4 | 2 | 10.5 | - | |
| | 5 | 2 | 3.1 | 2 | 10.5 | - | |
| Marital Age | 18-28 years | 52 | 80 | 8 | 42.1 | 12.329 | 0.002 |
| | 29-39 years | 2 | 3.1 | 4 | 21.1 | - | |
| | 40-49 years | 11 | 16.9 | 7 | 36.8 | - | |
| Religion | Islam | 35 | 53.8 | 8 | 42.1 | 0.097 | 0.755 |
| | Traditional Religion | 0 | 0 | 0 | 0 | | |
| | Christianity | 30 | 46.2 | 11 | 57.9 | - | |
| Economic Level | None | 0 | 0 | 1 | 5.3 | 5.501 | 0.139 |
| | Income lower than expenses | 61 | 93.8 | 15 | 78.9 | | |
| | Income is equal to expenditure | 3 | 4.6 | 2 | 10.5 | | |
| | Income more than expenditure | 1 | 1.5 | 1 | 5.3 | | |
| Educational | Secondary | 6 | 9.2 | 2 | 10.5 | 0.029 | 0.866 |
| Level | Higher | 59 | 90.8 | 17 | 89.5 | | |
| Working Status | Yes | 62 | 95.4 | 17 | 89.5 | 0.918 | 0.338 |
| | No | 3 | 4.6 | 2 | 10.5 | | |

 Table 7. Evaluation of genital mutilation type and sociodemographic characteristics

*Statistically significant difference by Chi Square test

In Table 7, result shows an association between marital age and among mutilation types (X2(2) > = 12.329, p = 0.002). In our study have not association was found between age, number of children, religion, economic level, working status and mutilation types (p>0.05).

| Sexual Problems | | Mut Type | Mutilation Гуре 1 | | ilation e 2 | | X ² | p |
|------------------------------|-----|-------------|----------------------|----|----------------|--|----------------|-------|
| | | N | % | n | % | | | |
| experience discomfort | Yes | 49 | 75.4 | 16 | 84.2 | | 45.680 | 0.001 |
| vaginal penetration | No | 16 | 24.6 | 3 | 15.8 | | | |
| reach orgasm (climax) | Yes | 27 | 41.5 | 15 | 78.9 | | 18.233 | 0.001 |
| during sexual intercourse | No | 38 | 58.5 | 4 | 21.1 | | | |
| need lubrication in | Yes | 46 | 70.8 | 16 | 84.2 | | 40.198 | 0.001 |
| every sexual intercourse | No | 19 | 29.2 | 3 | 15.8 | | - | |
| bleeding occur during | Yes | 45 | 69.2 | 17 | 89.5 | | 38.545 | 0.001 |
| intercourse | No | 20 | 30.8 | 2 | 10.5 | | | |

Table 8.Evaluation of sexual problems with genital mutilation type

*Statistically significant difference by Chi Square test

The analysis in Table 8. shows an association between "discomfort or pain following vaginal penetration" and mutilation types among the surveyed women $(X^2(1) > = 45.680, p = 0.001)$. Results further shows an association between "orgasm (climax) during sexual intercourse" and mutilation types among the surveyed women $(X^2(1) > = 18.233, p = 0.001)$. Result also shows an association between "lubrication in every sexual intercourse" and mutilation types among the surveyed women $(X^2(1) > = 18.233, p = 0.001)$. Result also shows an association between "lubrication in every sexual intercourse" and mutilation types among the surveyed women $(X^2(1) > = 40.198, p = 0.001)$. Also, result indicates an association between "bleeding during and / or after sexual

intercourse" and mutilation types among the surveyed women $(X^2(1) > = 40.198, p = 0.001)$.

| Table 9 |) |
|---------|---|
|---------|---|

| Trace, Terrormer, and Terception | n | 70 | |
|--|---------------------------|-----|------|
| Genital Mutilation Place | I don't know | 5 | 51.5 |
| | Home | 52 | 32.3 |
| | Health centre/Hospital | 18 | 11.2 |
| | Traditional health home | 8 | 5 |
| Who performed genital mutilation on you | Parents | 46 | 28.6 |
| | Nurse | 7 | 4.3 |
| | Midwife | 6 | 3.7 |
| | Physician | 11 | 6.8 |
| | I don't know | - | - |
| Do you know if any health-related problems | Yes | 130 | 80.7 |
| are associated with FGM | No | 31 | 19.3 |
| Have you done genital mutilation on your | Yes | 1 | 0.6 |
| daughters | No | 160 | 99.4 |
| Will you do genital mutilation on your | Yes | 1 | 0.6 |
| uauginers | No | 160 | 99.4 |
| Do you think genital mutilation on females | Yes | 1 | 0.6 |
| is a good practice | No | 160 | 99.4 |

Evaluation of Genital Mutilation According to Place, Performer, and Perception

Results presented in Table 9 shows that female genital mutilation was mostly done at home, and by parents' volition. Majority 80.7% of the respondents known the health implications of FGM, and these majority have not done it on their daughters, do not intend to do it, and opined that female genital mutilation is not a good practice.

CHAPTER V

Discussion

This is the cross-sectional case-control survey on the effect of female genital mutilation on obstetric, gynecologic outcomes in Ibadan, Nigeria. A self-administered questionnaire was used to elicit data from the mutilated and unmutilated women (161) to provide in-depth information on the research scope. Our study aims to determine the types of Female Genital Mutilation undergone, reproductive health implications, and the perceptions of women about the practice in Ibadan, Nigeria.

We found that the surveyed women earn lower than their expenses, Njoku et. al., reported that the surveyed women belong to the lower-economic class (Table 1). This finding may indicate that disabled women in other studies come from economically low and culturally oriented families and backgrounds (Al Awar et al., 2020).

In our study also found that (54.2%) majority of the mutilated women were of the Muslim religion; and the majority (91.9%) of the women earn income lower than their expenses. Also, our findings showed that the majority (90.5% mutilated) and (92.2% unmutilated) of the women have higher educational qualifications. These results indicated that the surveyed women are literate, youthful, and of reproductive age (Table 1).

Our study found that the types (stage) of female genital mutilation undergone by the surveyed mutilated women in Ibadan were type I (44%), Type II (19%) (Figure2). This is consistent with Ismail et al. (2017) that reported types I and II were experienced by women in Egypt. In agreement with the findings of our study, Njoku et. al. (2020) reported that mutilated women in Calabar, Nigeria underwent type I mutilation. This is also in agreement with Attah et al. (2020) submission that type I genital mutilation was common in the northeast region of Nigeria, though traditional healers and traditional birth attendants carry out the practice, contrary to parents and physicians as reported in our study.

Also, supporting our finding, Sonko et al., (2017) reported the types II, I, and III respectively. In addition, on the contrary, a study submitted that type II genital mutilation was most common in south-eastern Nigeria (Anikwe et al., 2019). Also, consistent with this finding illustrated that type II was most prevalent among cut-women in Egypt (Raheem et al., 2018). Also, the type I, II, and III respectively were found

among cut-women in United Arab Emirates (Al Awar, Al-Jefout, Osman, Balayah, Al Kindi, and Ucenic, 2020), consistent with our finding.

When the problems of women with genital mutilation were evaluated, it was determined in our study that women with genital mutilation experienced more postpartum hemorrhage, dysmonaea, and bleeding and pain problems after sexual intercourse (Table 2). In different studies, similar to our study, it was found that women with genital mutilation experienced more dysmonea (Lurie et al., 2020; Arafa et al., 2018). Similar to our study, it was found that women with genital mutilation experienced more sexual problems. Similar to our study, in studies conducted in different countries, it was observed that women who had genital mutilation had more difficulty in sexual life. In these studies, it is seen that women with genital mutilation experience more pain during sexual intercourse, and sexual intercourse causes vaginal bleeding (Al Awar et al., 2020; Mestre-Bach et al. 2018; Esho et al., 2017).

Our result showed an association between age (group) and mutilation status (Table 3). This supports the finding of Esho et al. (2017). The United Nations report 2022, consistent with this finding, identifies age as a major indicator for mutilation prevalence, and the 15-49 age range as pitched in this study reflects the knowledge and experience of girls and women about FGM. Also supporting this finding, Ahinkorah (2021) identifies age as a predictor of mutilation status among Chadian population, as 0-14 years girls were mutilated. Further supporting this finding on the mutilation status and age, Ahinkorah, Hagan, Ameyaw *et al.* (2020) reported that among sub-Saharan Africa (SSA) women and daughters, FGM increases with age.

We found an association between number of children and mutilation types among the surveyed women (X2(5)> = 42.381, p = 0.000), and established that that number of children of the mutilated group was statistically significantly higher than the unmutilated group (Table 3). Also, our result showed an association between marital age and mutilation status among the surveyed women ($X^2(2)$ > = 20.701, p = 0.000), and it can be concluded that the marital age of the unmutilated group was statistically significantly higher than the mutilated group (U= 2313, p = .000). Results also showed no association was found between religion and mutilation status. This is consistent with report by Okeke, Anyaehie & Ezenyeaku (2012) that the female genital mutilation is practiced across religions in Nigeria, though as reported by UNICEF's 2001 survey, it is more prominent among Christian communities. However, our study recorded more Muslims respondents that have the FGM experience.

Different studies did not account for number of children, and marital age in their demographic information considerations, and categorisations. This may be as a result of geographic peculiarities, as Nigeria, being the most populous nation in Africa attained such height through high rate of procreation which is informed by early marital life, and or cohabition, through religious or cultural ideations (Esho et al., 2017;Ameyaw *et al*, 2020; Ahinkorah et al., 2021).

In addition, results showed no association was found between economic level and mutilation status contrary to report by Esho *et al.* (2017) and Ahinkorah et al. (2020) that uncut women in Kenya were more likely to be of higher education. Here, it is believed that women with wealthy background are most unlikely to experience female genital mutilation, unlike those in the lower economic cadre and ladder in the society. Also, our result showed no association between work status and mutilation status among the surveyed women in consistence with Esho *et al.* (2017) that reported no association between economic activity and the cutting status of the married women in Kenya. On the contrary, In one study posits that economic level is predictive of FGM experience among women, and economic level is preponderance on work status and pushes a contrary opinion, and projects that work status which indicates the economic status of women cannot be unconnected with vulnerability to female genital mutilation practice (Ahinkorah et al., 2020).

While our study reported no relationship between economic level and cut status (Table 3), Ahinkorah *et al.* (2020) reported a correlation as mutilation reduced with wealth status among women and daughters in sub-Saharan Africa, as they are less likely to undergo genital mutilation unlike the financially low in the communities. Similarly, while our results indicated no connection between educational level and mutilation status among the surveyed women, Ahinkorah, Hagan & Ameyaw *et al.* (2020) submitted that increased educational attainment reduces the propensity of mutilation among surveyed women and daughters. Other study reported that age and level of education are factors associated with FGM among women in the Bawku municipality and Pusiga District of northern Ghana (Sakeah et al., 2018).

There is a statistically significant difference in vagina delivery between the mutilated and unmutilated women (Table 4). This finding supports Nonterah et al. (2019) which reports that mothers who had practiced FGM were 85% more likely to be delivered of their babies through instrumental delivery compared with those who had not practiced FGM among rural women in Northern Ghana. Contrary to our finding, Davis and Jellins (2019) and Akpak and Yilmaz (2020) reported no statistical difference in normal vaginal delivery. In our study, we found that there is no statistically significant difference in vacuum delivery between the mutilated and unmutilated women, there is no statistically significant difference in forceps delivery between the mutilated and unmutilated women.

Our finding is contrary to Davis and Jellins's (2019) which reported a significant difference between groups as women with FGM were less likely to be delivered by vacuum or forceps. There is no statistically significant difference in caesarian section delivery between the mutilated and unmutilated women (Table 4). This finding is consistent with that of Davis and Jellins (2019) which reported no difference in caesarean section rate between the groups. However, contrarily, Nonterah et al. (2019) reported that cut-mothers were nearly twice as likely to have caesarean delivery compared with the uncut- mothers in Ghana. Also reported contrarily, Akpak and Yilmaz (2020) reported that C- section rates were statistically significantly higher in the FGM/C group.

In our study, it was determined that there was a significant difference in morbidity between women who were mutilated and those who were not (Table 5). The rate of stating that they are experiencing morbidity is lower in those who are mutile. It can be thought that although mutile women experience problems such as bleeding, they do not see these problems as diseases. Davis and Jellins's found (2019) that there no significant difference about morbidity in their study.

Our results show there is no statistically significant difference in episiotomy between the mutilated and unmutilated women (Table 5). This corroborates Davis and Jellins (2019) with the submission that there is no significant difference in episiotomy. On the contrary, Akpak and Yilmaz (2020) that the use of episiotomy was statistically significantly increased in the FGM group, as a higher rate of episiotomy in the FGM group was recorded. Abdelhady and Elnashar (2006) reported a statistically significant difference in mean of episiotomy between groups. However, on the contrary, Nonterah et al. (2019) reported a difference as cut-mother in Ghana had a 2-fold increased risk of episiotomy. This finding is also consistent with a survey which reported high risk of episiotomy during childbirth among cut women (Reisel, and Creighton, 2015).

According to our study results, there is a statistically significant difference in 3rd/4th-degree tear between the mutilated and unmutilated women (Table 5). This supports Elnashar and Abdelhady (2006) which reported a statistically significant difference in means of 3rd/4th-degree tear between groups. This finding also corroborates Varol *et al.* (2016) which reported statistically significant higher rates of perineal tears between the cut and uncut women. Also consistent with our result, Gebremicheal *et al.* (2018) found a significant difference in perineal tear scores between mutilated and unmutilated women. Also consistent with this finding, Berg and Underland (2013) reported difference in Obstetric tears between groups. Also, this finding is confirmed by Essen et al. (2004) which reported that cut women have more third-degree vaginal tears.

In our study there is a statistically significant difference in Postpartum haemorrhage between the mutilated and unmutilated women. This agrees with Nonterah et al. (2019) reported a difference as cut mothers in Ghana have more than 4-fold risk of postpartum haemorrhage. On the contrary, Davis and Jellins (2019) reported no difference in postpartum haemorrhage. Also, consistent with this finding, Akpak and Yilmaz (2020) reported no statistical significance could be detected for major PPH.

In our research, no statistically significant difference in neonatal outcomes between the mutilated and unmutilated women (Table 5). This finding agrees with Davis and Jellins (2019) which reported no significant difference in the mean of neonatal outcome between the mutilated and unmutilated women. This study finding also aligns with Varol *et al.* (2016) which reported that there is similarity between cut and uncut women's neonatal outcome means scores.

In our study no statistically significant difference in admission to special care nursery between the mutilated and unmutilated women. This finding is consistent with Davis and Jellins (2019) which reported that no difference in admission to special care nursery between the mutilated and unmutilated women. In our research no statistically significant difference in infection of episiotomy between the mutilated and unmutilated women (Table 5). In our study no statistically significant difference in difficulties in cervical examination between the mutilated and unmutilated women. This finding contrasts Yassin et al. (2018) which reported a difference as mutilated women have challenges when cervical or pelvic is to be examined during labour.

In our study, there is a statistically significant difference in dysmenorrhea between the mutilated and unmutilated women (Table 5). This agrees with Elnashar and Abdelhady (2006) which demonstrated a significant difference in mean score for dysmenorrhea. According to our study, no statistically significant difference in recurrent urinary and vaginal infections between the mutilated and unmutilated women. This finding supports Elnashar and Abdelhady (2006) which reported no significant differences in mean score for urinary problems between circumcised and noncircumcised females. According to our study no statistically significant difference in recurrent urinary and vaginal infections between the mutilated and unmutilated women. This finding supports Elnashar and Abdelhady (2006) which reported no significant differences in mean score for urinary problems between the mutilated and unmutilated women.

In our study, there is no statistically significant difference in surgery to release labial adhesion between the mutilated and unmutilated women (Table 5). This is contrary to Yassin et al. (2018) who reported a significant difference and submits that mutilated women require surgery to release labial adhesions at the first attempt of sexual intercourse. However, as reported by Okeke et al. (2012), longer hours of child labour, perinatal morbidity, delayed 2nd stage and obstructed labor leading to fistulae formation, and mortality increase are connected with female genital mutilation.

According to our study results, there is a statistically significant difference in "discomfort" between the mutilated and unmutilated women (Table 6). This result indicates that pain as a result of vaginal penetration is experienced by mutilated women, unlike, perhaps, more than the unmutilated women. This is consistent with Ismail et al., (2017) and Sánchez-Sánchez (2020) that reported a statistically significant difference between the two groups for the pain domain. Illustrated on the contrary, Alsibiani, and Rouzi (2008) and Esho et al., (2017) reported that there were no statistically significant differences between the two groups in mean pain score.

In our study there is a statistically significant difference in "orgasm" between the mutilated and unmutilated women (Table 6). Supporting our results diffirent studies reported that there were statistically significant differences between the mutilated and unmutilated groups in their scores for orgasm (Alsibiani and Rouzi, 2008; Sánchez-Sánchez, 2020). Also, supporting our finding on orgasm, other studies found significant differences between cut-women and uncut-women groups in orgasm (Esho et al., 2017; Biglu et al., 2016). On the contrary, Ismail et al's., (2017) report that there was no statistically significant difference between the two types of FGM as regards total and individual domain scores except for the orgasm domain.

According to our study results there is a statistically significant difference in "need for lubrication" between the mutilated and unmutilated women (Table 6). Consistent with our results, Alsibiani and Rouzi (2008) reported statistically significant differences between the two groups in their scores for lubrication. Other supporting findings reported significant differences between cut-women and uncut-women groups in lubrication (Esho et al., 2017; Sánchez-Sánchez 2020; Biglu et al., 2016). This finding is inconsistent with Ismail et al., (2017) which illustrated that there was no statistically significant difference between the two groups for the lubrication domain.

In our study, there is a statistically significant difference in "bleeding during/after sex" between the mutilated and unmutilated women (Table 6). In agreement with this result, Yassin et al. (2018) reported a significant difference in means of bleeding was experienced by cut women after the first attempt of sexual intercourse.

When we compared genital mutilation type and sociodemographic characteristics in our study, we found a significant difference only between marriage age and mutilation type (Table 7). We found that women with Type I mutilation married earlier than those with Type 2 mutilation. We did not find a relationship between other sociodemographic characteristics and genital mutilation type. Similar to our study, no significant relationship was found between genital mutilation type and sociodemographic characteristics in one studies.. The reason for our result may be because there were only women with Type and Type 2 FGM in our sample group (Alinia et al., 2020; Al Awar et al. 2020). Our results showed an association between "discomfort or pain following vaginal penetration" and mutilation types among the surveyed women $(X^2(1) > = 45.680, p = 0.000)$, an association between "orgasm (climax) during sexual intercourse" and mutilation types among the surveyed women $(X^2(1) > = 18.233, p = 0.000)$, an association between "lubrication in every sexual intercourse" and mutilation types among the surveyed women $(X^2(1) > = 40.198, p = 0.000)$, and an association between "bleeding during and / or after sexual intercourse" and mutilation types among the surveyed women $(X^2(1) > = 40.198, p = 0.000)$, and an association between "bleeding during and / or after sexual intercourse" and mutilation types among the surveyed women $(X^2(1) > = 40.198, p = 0.000)$ (Table 8).

Our findings established that variation in sexual problems can be connected with the type of mutilation undergone by cut women (Table 8). This is in agreement with findings that sexual desires in women with type II mutilation is low, relatively low, especially when compared with uncut women. Also consistent with out findings, Ismail *et al.* (2017) reported that variation in sexual desire among type I, II, and III mutilated women. This implies a relationship between the mutilation types and the sexual problems encountered by cut women. Also consistent with our findings, Rouzi, *et al.* (2017) reported that mutilation types (I & II) or variations predicts sexual desire, satisfaction, pain, and arousal. Corroborating our findings, Nzinga et al. (2021) reported that sexual functioning can be impaired and this impairment leads to sexual problems, and the type of mutilation may result into impaired sexual functioning.

In addition, our findings is consistent with another survey that reported that cut women with type I & II mutilation feel sexual risks and problems differently and lower from type III cut women in Eritea (Berg, Underland & Odgaard-Jensen J, *et al* (2014). However, contrary to our findings, Yassin et al. (2018) reported that mutilation-driven sexual complications were not significantly varied by FGM types among Sudanese women.

Our study's finding that female genital mutilation is mostly done at home (Table 9), and by parents and physicians, nurses, and midwives respectively, corroborates Ismail et al. (2017) that reported types I and II were done by mainly physicians, and midwives respectively. When done at home, parents invite local/traditional circumcisers to carry out the mutilation, while some parents do it themselves or by elderly members of the family. This aligns with which reported that almost all mutilations on mutilated women in the Kurdistan province of Iran were performed by traditional circumcisers

(Biglu et al., 2016). Also, in consonance with this study, Elbendaryet al. (2020) reported that mothers were major participants and deciders of genital mutilation on their daughters.

The majority of the surveyed women are aware of the health implications of female genital mutilation on females, majority of them have not done it on their daughters, and would not do it, as they perceived it as a bad practice against women and girls, and have a negative attitude towards the practice (Table 9) like women in Yemen. This indicates a high rate of mutilation among mothers, while the mothers would not replicate on their daughters (Mahmoud, 2016; Sulaymaniyah, 2015). This also agrees with a 2015 High Council of Women Affairs report of more mutilated mothers than daughters in Yemen. Also, consistent with our finding, Al Awar et. (2020) reported that few women reported that their daughters had undergone FGM/C, with Type I being the most common, and 25% of them planned to have their future daughters undergo Type I FGM/C.

CHAPTER VI

Results and Recommendations

Our study aimed to assess the effect of female genital mutilation on obstetric, gynecologic outcomes in Ibadan, Nigeria.

Conclusion

Based on the research questions of this research, the following conclusions are reached;

- The majority of the surveyed women in Ibadan are literate (91.3%), Christian (50.3%), youthful (59.6%), employed, belong to the lower class economic strata (91.9%), and are of reproductive age.
- Only types I and II female genital mutilations were carried out on the surveyed mutilated women. The most prevalent female genital mutilation type underwent by mutilated women in Ibadan is type I (77.3%)
- The majority of the mutilated women gave birth to their children through normal vaginal delivery. This is the same with the unmutilated women.
- 4) The majority of the mutilated women experienced (PPH) postpartum haemorrhage (67.9%) and dysmenorrhea (78.6%)
- The unmutilated women did not experience any obstetric and gynecologic problems.
- Adverse obstetric outcomes are still high among cut women, unlike the uncut women.
- 7) Sexual problems are high among cut women, unlike the uncut women (p=0.001).

- The mutilated women experience sexual dysfunctionalities such as discomfort or pain following vaginal penetration and do not reach orgasm (climax) during sexual intercourse (p=0.001).
- 9) Female genital mutilation is mostly done at home, and by parents. The majority of the surveyed women are aware of the health implications of female genital mutilation on females, the majority of them have not done it on their daughters, and would not do it in the future, as they perceived it as a bad practice against women and girls (80.7%).
- 10) Variation in sexual problems can be connected with the type of mutilation undergone by cut women. This is in agreement with findings that sexual desires in women with type II mutilation is low, relatively low, especially when compared with uncut women.
- 11) The majority of the surveyed women are aware of the health implications of female genital mutilation on females, majority of them have not done it on their daughters, and would not do it, as they perceived it as a bad practice against women and girls, and have a negative attitude towards the practice.

6.2 Recommendations

Based on the findings of the study, the following are recommended.

1) The government and health institutions in Ibadan, Oyo State should give more clinical and medical care to mutilated women to help them gradually ease the health implications (postpartum haemorrhage and dysmenorrhea) FGM has on them.

2) Women and girls should be sensitised on the health implications of FGM, and how to improve their quality of life. These could be achieved through intentional parenting and cordial relationship between mothers and their girl child, and also sensitization programmes through religious leaders and schools, more importantly, through teaching FGM as a topic in health education as the primary and junior secondary levels.

3) There should be a government intervention and health institution's commitment to offering free clitoral construction surgeries for willing mutilated women, as clitoral reconstruction helps to reduce pains, and cause intact perineum.

4) Health professionals are indispensable in achieving FMG eradication and prevention. Therefore, health professionals should be trained and retrained on the health implications of FGM, the expected treatment, and care for victims across individual and cultural peculiarities.

5) Language is one of the major barriers to the successful transmission, seeking, and sharing of health information. Therefore, efforts should be made by government and non-governmental organisations to ensure female genital mutilation information is made available in indigenous languages, as well as through accessible media channels such as radio, and one-on-on campaign in order to reach more populations, especially those in the rural areas.

6) Nurses play pivotal roles in delivery quality healthcare services. Thus, in the implementation of laws to eradicate the FGM practice, nurses, being closer to patients, should be engaged mothers and intending mothers (at antenatal) to shun the practices.

7) Discontinuing, and or eliminating the female genital mutilation practice is a collective effort which requires multilevel and multifaceted approaches and interventions through advocacies and capacity building and and educational instrumentations(peer group discussion, peer teaching and training, community reorientation and dialogue, media advocacy, socio-economic empowerment and entrepreneurial trainings, mentorship, guidance and counselling) at the national, state, and local levels and cummunities where the practice is widespread.

8) Religion plays a significant role in the Nigeria society. Therefore, religious leaders should be engaged as tools of reorientation against the female genital mutilation practice among their followers.

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ARAŞTIRMA PROJESİ DEĞERLENDİRME RAPORU

| Toplantı Tarihi | : 30.07.2020 |
|-----------------|--------------|
| Toplantı No | : 2020/81 |
| Proje No | :1138 |

Yakın Doğu Üniversitesi Hemşirelik Fakültesi öğretim üyelerinden Yrd. Doç. Dr. Serap Tekbaş'ın sorumlu araştırmacısı olduğu, YDU/2020/81-1138 proje numaralı ve "Effect Of Female Genital Mutilation on Obstetric Outcomes And Sexual Function İn Ibadan, Nigeria: Case Controlled Study" başlıklı proje önerisi kurulumuzca online toplantıda değerlendirilmiş olup, etik olarak uygun bulunmuştur.

thelling Prof. Dr. Rüştü Onur

Yakın Doğu Üniversitesi Bilimsel Araştırmalar Etik Kurulu Başkanı

APPENDICES

Questionnaire

Effect of Female Genital Mutilation on Obstetric Outcomes and Sexual Function in Ibadan, Nigeria: Case Controlled Study Dear Respondent,

This questionnaire is designed to elicit your views and opinions on the questionnaire Effect of Female Genital Mutilation on Obstetric Outcomes and Sexual Function in Ibadan, Nigeria. Be assured of confidentiality on all personal information you give as information obtained from this questionnaire will be used for this research only. Participation in this study is voluntary. Thank you for your anticipated cooperation and contribution.

PART I: Socio-demographic Questions

- 1) How old are you? -----
- 2) What is your religion? Christian () Muslim () Traditional religion ()
- 3) Work status
- 4) Are you working Yes () Where..... No ()
- 5) What is your economic situation? Income is lower than expenses () Income is equal to expenditure() Income more than expenses ()
- 6) What is your educational level? None () Primary () Secondary () Higher ()
- 7) How is your family type? Extended () Nuclear ()
- 8) How many children do you have ?-----
- 9) How old were you when you were married?.....

PART II: Types of Female Genital Mutilation

This section is designed to collect information on the types of Female Genital Mutilation undergone by women in Ibadan, Nigeria. Please, provide your response to each statement with a $[\sqrt{}]$ "tick" on one of the columns that is appropriate to your opinion.

| s/n | Types of Female Genital Mutilation | Type I: Clitoridectomy; partial or complete excision of the clitoris and/or the prepuce. | Type II: Excision; partial or complete removal of the clitoris and labia minora, with or without removal of labia majora. | Type III: Infibulation; reduction of the vaginal orifice with a seal formed by cutting and repositioning of labia minora and/or labia majora, with or without removal of the clitoris. | Type IV: All other hard procedures to the genitalia suc pricking, piercing, incising, scray and cauterization. |
|-----|---|---|--|---|---|
| 1 | Please, indicate which of the types of mutilation was done on you. | | | | |

PART III: Mode of delivery, obstetric, gynecologic and sexual problems

This section is designed to collect information on the reproductive health problems associated with genital mutilation among women in Ibadan, Nigeria. Please, provide your response with a $[\sqrt{}]$ "tick" on the option that is appropriate to your opinion.

Mode of delivery

| 1) Did you give birth through normal vaginal delivery? | Yes () | No () |
|---|---------|--------|
| 2) Did you give birth through vacuum? | Yes () | No () |
| 3) Did you give birth through forceps? | Yes () | No () |
| 4) Did you give birth through caesarian section (total)? | Yes () | No () |
| Obstetric and Gynecologic Problems 5) Do you experience episiotomy? | Yes () | No () |
| 6) Do you experience morbidity? | Yes () | No () |
| 7) Do you experience 3rd/4th degree tear? | Yes () | No () |
| 8) Do you experience postpartum haemorrhage? | Yes () | No () |
| 9) Do you experience neonatal outcome? | Yes () | No () |
| 10) Do you experience admission to special care nursery? | Yes () | No () |
| 11) Do you experience an infection of episiotomy? | Yes () | No () |
| 12) Do you experience difficulties in cervical examination? | Yes () | No () |
| 13) Do you experience dysmenorrhea? | Yes () | No () |
| 11) D | • | , · | 1 . 1 | | TT () | $\mathbf{N}\mathbf{T}$ | |
|-----------|----------------|---------------------|---------------|-------------|---------------|------------------------|--|
| 1/11/10 | VOU evnerience | recurrent uringry g | nd vagina | 1ntections? | | | |
| 1 + 1 D U | you experience | recurrent urmary a | nu vagma | | | | |
| , | J 1 | <i>J</i> | \mathcal{O} | | | | |

| 15) Did you undergo surgery to release labial adhesion | Yes () | No (|) |
|--|--------|------|---|
|--|--------|------|---|

Sexual Problems

| 16) Do you experience discomfort or pain following vaginal penetration? | Yes () | No () |
|---|---------|--------|
| 17) Do you reach orgasm (climax)?during sexual intercourse? | Yes () | No () |
| 18) Do you need lubrication in every sexual intercourse? | Yes () | No () |
| 19) Does bleeding occur during and / or after sexual intercourse? | Yes () | No () |

PART IV: Place, Performer, and Perceptions of Female Genital Mutilation

Please, provide your response to each statement with a circle on one of the options that is appropriate to your opinion.

1) Where was genital mutilation carried out on you? a) Home b) Health centre/Hospital c) Traditional health home d) Church e) Mosque f) I don't know

2) Who performed genital mutilation on you? a) Parents b) Barber c) Nurse d) Midwife e) Physician f) I don't know

- 3) Do you know if any health-related problems are associated with FGM? Yes () No ()
- 4) Have you done genital mutilation on your daughters? Yes () No ()
- 5) Will you do genital mutilation on your daughters? Yes () No ()

6) Do you think genital mutilation on females is a good practice? Yes () No ()

Thank you for your time