ABSTRACT

Background

The United Nations Children's Fund (UNICEF) estimates that at least 200 million women and girls have been subjected to the dangerous cultural practice of female genital mutilation (FGM). High prevalence rates occur in Africa, the Middle East and South-East Asia. FGM has become a domestic health issue due to mass migration of communities to South Africa.

Objectives

This study aims to assess the knowledge, attitudes and beliefs of FGM by Obstetrics and Gynaecology (O&G) doctors in South Africa.

Methods

A descriptive, cross-sectional study design was used. A self-administered, anonymous, online questionnaire assessing medical knowledge, attitudes and beliefs regarding FGM, was distributed to the members of the South African Society of Obstetricians and Gynaecologists (SASOG).

Results

51 participants completed the questionnaire.

The majority of the doctors (78.4%) had a Knowledge Score of more than 50% (Knowledge Score higher than 26). Most doctors (60.8%) scored between 26 and 38 while only 17.6% of doctors scored more than 39. The median Knowledge Score was 33 (IQR: 26 – 37).

There were significant associations between Knowledge Score and gender (p=0.02), prior training in FGM (p=0.002), prior training received by video/seminar/pamphlet (p=0.003) and prior management of a patient who had undergone FGM (p=0.04). There was no significant association between Knowledge Score and age, level of O&G training, country of undergraduate medical training or the doctors' self-reported level of knowledge on FGM.

While assessing attitudes and beliefs of gynaecologists about FGM, common themes that emerged were: shock and anger, empathy and sadness, violation of human rights, sub-optimal training in FGM, concerns about obstetric complications and concerns for the patient's welfare.

In gauging difficulties experienced by gynaecologists while managing FGM, common themes comprised of emotional and psychological trauma for doctors, difficulty in understanding cultural beliefs, difficulty in vaginal examinations and obstetric complications.

Conclusion

The majority of South African O&G doctors assessed have adequate FGM knowledge and experience comparable feelings and difficulties when managing patients that have undergone FGM.

Further research and additional training is recommended to improve healthcare services to women affected by FGM.

Literature Review

INTRODUCTION

Female genital mutilation (FGM); also known as female genital cutting (FGC), female circumcision, or female genital mutilation/cutting (FGM/C), is defined as all procedures that involve partial or total removal of the external female genitalia, or other injury to the female genital organs for non-medical reasons.[1] The exact origins of this cultural practice are unknown.[2]

United Nations Children's Fund (UNICEF) estimates that at least 200 million women and girls alive today have been subjected to FGM. [3] Africa, parts of the Middle East and Southeast Asia have the highest prevalence rates. With the high rate of globalization and migration, there are increasing trends in Europe, North America, Australia and South Africa; making FGM a domestic health issue.[3,4]

Infibulation or FGM Type III, the most severe form of FGM, is present in 1 in 5 girls in the following countries: Somalia, Eritrea, Djibouti, Niger and Senegal.[1]

CLASSIFICATION

In 1997, the World Health Organisation (WHO) classified FGM into 4 types according to the extent of anatomical structures affected:[1]

- Type I comprised of excision of the prepuce, with or without partial excision of the clitoris.
- Type II comprised of excision of the clitoris with partial or total excision of the labia minora.
- Type III comprised of excision of part of or all of the external genitalia and infibulation.
- Type IV included unclassified procedures performed on the external genitalia such as pricking, piercing, incising and cauterization of the clitoris or surrounding tissues; vaginal scraping or cutting; and insertion of substances into vagina to tighten or narrow the vaginal opening.[1]

The above classification was modified in 2007.[1] Each type was sub-classified to reflect more closely the anatomical structure affected due to minor variations within each type.

- Type I is the partial or total removal of the clitoris and/or the prepuce (clitoridectomy).
    - Subtype IA is the removal of the clitoral hood or prepuce only.
    - Subtype IB the removal of the clitoris and prepuce.
- Type II is the partial or total removal of the clitoris and the labia minora, with or without excision of the labia majora.
    - Subtype IIA is removal of the labia minora only.
    - Subtype IIB is the partial or total removal of the clitoris and the labia minora.
    - Subtype IIC is the partial or total removal of the clitoris, the labia minora and the labia majora.

- Type III is the narrowing of the vaginal orifice with the creation of a covering seal by cutting and appositioning the labia minora and/or labia majora, with or without excision of the clitoris (infibulation).
    - Subtype IIIA is the removal and apposition of the labia minora.
    - Subtype IIIB is the removal and apposition of the labia majora.
- Type IV is unclassified, it is all other harmful procedures to the female genitalia for non-medical purposes (pricking, piercing, incising, scraping and cauterization).[1]

COMPLICATIONS

Immediate Complications

Immediate complications include genital swelling, haemorrhage, pain, infection (local infection, abscess formation, genital or urinary tract infections or septicaemia), acute urinary tract complications (acute urinary retention, urethral injury or dysuria), poor wound healing, shock (haemorrhagic, neurogenic and septic) and even death.[4]

Obstetric Complications

These comprise of higher rates of caesarian section, difficult labour or dystocia, episiotomy, prolonged labour, operative vaginal delivery, obstetric lacerations and tears, post-partum haemorrhage and prolonged hospital stay.[5]

Neonatal complications include neonatal resuscitation at delivery, stillbirth and early neonatal death.[4]

Psychological Complications

Psychological complications include post-traumatic stress disorder, anxiety disorders and depression. Sexual health complications include dyspareunia, decreased sexual satisfaction, decreased lubrication during sexual intercourse, and reduced frequency of orgasms or anorgasmia.[4]

Long-term Complications

Long-term complications include chronic vulval or clitoral pain, chronic genital tract infections, recurrent urinary tract infections, chronic dysuria, urinary tract obstruction,

chronic vaginal itchiness, pelvic inflammatory disease, chronic pelvic pain, dysmenorrhoea, irregular menses and obstruction to the passage of menstrual blood. [4]

Gynaecological Health Complications

These consist of difficulties in performing gynaecological examinations, cytology testing, and evacuation of the uterus, intra-uterine device placement and tampon usage, especially in cases of Type III FGM.[6]

ETHICS

FGM violates human rights in the form of: right to life when death occurs; gender inequality; torture, cruel, inhumane and degrading treatment of girls and women; and abuse of the physical, psychological and sexual health of girls and women.[2]

Children aged between 1 month and 15 years old are the ones most affected by FGM.[7] Girls are often forced into FGM at an age when they are unable to comprehend the severe, life-long implications of the procedure.

Without any evidence supporting the benefit of medicalisation of FGM, this practice has been abolished but is still practiced by doctors in Egypt, Kenya and Sudan.[7]

LAWS

In 1958, the United Nations Economic and Social Council (ECOSOC) raised the issue of FGM as a social and cultural problem.[1] In 2003, South Africa ratified the "Maputo Protocol" that prohibits and condemns FGM and other harmful practices.[8] The 2008 Inter-agency Statement was created by the WHO, the UNICEF and United Nations Population Fund (UNFPA). It appeals to all national and international organizations, civil societies and communities to uphold the rights of women and promote the abandonment of FGM by building on human rights and gender inequality.[1]

In 2012, 194 countries of the UN adopted the 5 resolutions to eliminate practices and violations that present danger to the health of women and girls. It urges countries to take necessary measures to protect women and girls from FGM by enacting and enforcing legislation, raising awareness and allocating sufficient resources. [4]

CULTURAL AND SOCIAL ASPECTS

FGM is a cultural practice and manifestation of gender inequality arranged and performed by elder women of the community. Many women have the procedure performed on their children due to peer pressure, fear of stigmatization or being ostracised.[1] The social benefits of marriageability, cultural identity and community acceptance are deemed higher than FGM's disadvantages, as marriage is essential in these communities for economic and social security.[1]

The practice is perpetuated as it is thought to preserve a women's virginity, ensure marital fidelity and paternity, enhance male sexual pleasure, control fertility, improve aesthetics and fulfill local ideals of womanhood, femininity and being a "proper wife".[1]

ROLE OF HEALTHCARE PROFESSIONALS

Due to limited research on FGM in South Africa, it is unclear whether doctors have adequate understanding, knowledge and skills to identify and adequately manage patients who have undergone FGM.

A Flemish study showed deficiencies in FGM knowledge were a significant barrier to providing adequate healthcare. Further training was recommended with a focus on the legal implications of FGM.[9]

A systematic literature review revealed that prior studies were limited by study quality, small samples sizes and low response rates. High-income countries like USA, Switzerland, Spain, Australia and New Zealand; observe higher volumes of FGM patients due to migration. Doctors in Egypt showed support for the continuation of FGM (88%) and would have their own daughter undergo FGM (48%), while doctors in Gambia believed that medicalisation of FGM would make the practice safe (43%). In Sudan 75% of doctors believed that FGM was legal. There is a need for easily accessible educational resources and evidence-based guidelines.[7]

Social and cultural understanding of the practice, medical skills and knowledge for the identification and management of FGM and its complications will enhance the healthcare provided to those affected by FGM and play a fundamental role in the eradication of FGM.

OBJECTIVES

This study aims to assess the knowledge, attitudes and beliefs of Obstetrics and Gynaecology doctors in South Africa.

METHODS

STUDY DESIGN

The study was a descriptive cross-sectional study using primary data in the form of a self-administered, anonymous, online questionnaire assessing medical knowledge, attitudes and beliefs surrounding FGM. South African medical officers, registrars and consultants affiliated with South African Society of Obstetricians and Gynaecologists (SASOG) were invited to participate in the study. Members located within South Africa, in both the public and private sector, were included.

Distribution of the questionnaire was via LimeSurvey, an open source online statistical survey web application. Informed consent was obtained as part of the questionnaire; consent is implied by the undertaking, completion and submission of the online questionnaire. The study was piloted to 2 consultants and 2 registrars that were not affiliated to SASOG. The questionnaire was well received and no changes were made.

SETTING

Due to global migration, South African gynaecologists have increasing exposure to women affected by FGM. SASOG members are comprised of a large variety of skills and training levels (medical officers, registrars and specialists), a combination of the public and private sector as well as combination of rural and urban locations. This provides a broad overview of O&G doctors in South Africa.

STUDY POPULATION

The study was conducted in December 2018 and included all gynaecologists practicing in South Africa who are affiliated to SASOG, who elected to undertake the online questionnaire.

STUDY SAMPLE AND SAMPLE SIZE

Inclusion criteria

All available O&G medical officers, registrars and consultants affiliated with SASOG, who were prepared to undertake the questionnaire during the specified time frame at which the questionnaire was administered.

Exclusion criteria

Any registrars or consultants who fit the inclusion criteria were excluded if:

- They choose not to participate in the study
- They did not complete and submit the questionnaire

Sample size

A convenience sample of 50 participants was targeted.

DATA COLLECTION

Data collection procedures

Study participants were invited to complete a semi-structured questionnaire that was self-administered, anonymous and distributed online via LimeSurvey during December 2018.

The questionnaire consisted of questions to determine participant socio-demographics and their knowledge, attitudes and beliefs regarding FGM. Knowledge Score is a ordinal value derived from a total score based on several True/False questions assessing classification of FGM, de-infibulation methods and timing, acute complications, long-term complications, obstetric complications, South African legal ramifications; and attitudes, beliefs and personal experiences when managing patients with FGM.

Open-ended qualitative questions were assessed in themes based on prior literature. These themes were also compared to the Knowledge Score.

Informed consent

An information sheet was given to participants prior to choosing to participate in the study. Consent was implied by the undertaking, completion and submission of the anonymous online questionnaire.

DATA MANAGEMENT

The data sheet was created and data managed using REDCap. REDCap is a secure web application for building and managing online surveys and databases. Data was then transferred to STATA 14 (Statcorp, College Station, Texas) for statistical analysis.

DATA ANALYSIS

Descriptive tables were constructed for the socio-demographic characteristics of the doctors. Means (standard deviations) or medians (inter-quartile ranges) were described for continuous variables. Categorical variables were tabulated and their frequencies were recorded.

The Knowledge Score was used to compare the degrees of knowledge to the socio-demographics, training levels and social/cultural/ethical beliefs. The Knowledge Scores were further divided into Poor/Medium/Good categories based on the median and inter-quartile range. The Kruskal-Wallis test was used to test for association between the Knowledge Scores of each category of several variables. Statistical significance was considered at $p < 0.05$. Qualitative data was reviewed and themes developed based on frequency of similar answers.

ETHICS APPROVAL

The University of Witwatersrand Human Research Ethics Committee (Ref. No approved the study. M180117).

ACKNOWLEDGEMENTS

I would like to acknowledge SASOG for their cooperation and assistance. Also, Professor H. Lombaard for his ongoing support and dedication, without which, this study would not be possible.

CONFLICTS OF INTEREST

None

RESULTS

GENERAL CHARACTERISTICS

Table 1 below shows socio-demographic and general characteristics of the study participants. 51 doctors volunteered to take part in this study.

Table 1: General characteristics of the study participants

Characteristics	**Total N=51**
Age	
Median (inter-quartile range)	41 (34 - 55)
Gender	
● Female	31 (60.8%)
● Male	20 (39.2%)
Level of Obstetrics and Gynaecology training	
● Medical officer (1 – 4 years)	0 (0.0%)
● Medical officer (>4 years)	1 (1.9%)
● Registrar (1 – 2 years)	1 (1.9%)
● Registrar (>2 years)	6 (11.8%)
● Consultant with FCOG (<5 years)	15 (29.4%)
● Consultant with FCOG (5 – 10 years)	10 (19.6%)
● Consultant with FCOG (>10 years)	16 (31.4%)
● Other	2 (4.0%)
Undergraduate training in South Africa	
● No	6 (11.8%)
● Yes	45 (84.0%)
Doctors trained other than in South Africa	
● Bangladesh	1 (16.7%)

● Belgium	1 (16.7%)
● Nigeria	3 (50.0%)
● Zimbabwe	1 (16.7%)
Knowledge level of FGM (self-reported)	
● None	2 (3.9%)
● Theoretical	11 (21.6%)
● Observed only	3 (5.9%)
● Limited clinical exposure	29 (56.9%)
● Clinical competence	5 (9.8%)
● Clinical expertise	1 (1.9%)
Received prior training in identification and management of FGM in medical school or hospital	
● No	24 (47.1%)
● Yes	27 (52.9%)
Received other training (video, seminar, pamphlet or publication) in identification and management of FGM in medical school or hospital	33 (64.7%)
● No	18 (35.3%)
● Yes	
Belongs to a community that practices FGM	
● No	51 (100.0%)
● Yes	0 (0.0%)
Ever treated a patient that has undergone FGM	
● No	15 (29.4%)
● Yes	36 (70.6%)

FGM KNOWLEDGE SCORE

The median Knowledge Score for the doctors was 33 (IQR: 26 – 37). The highest score was 46 (out of 52). Figure 1 shows the distribution of the knowledge score. A large majority of the doctors (78.4%) had a Knowledge Score of more than 50% (Knowledge Score higher than 26). Most doctors (60.8%) scored between 26 and 38 while only 17.6% of doctors scored more than 39.

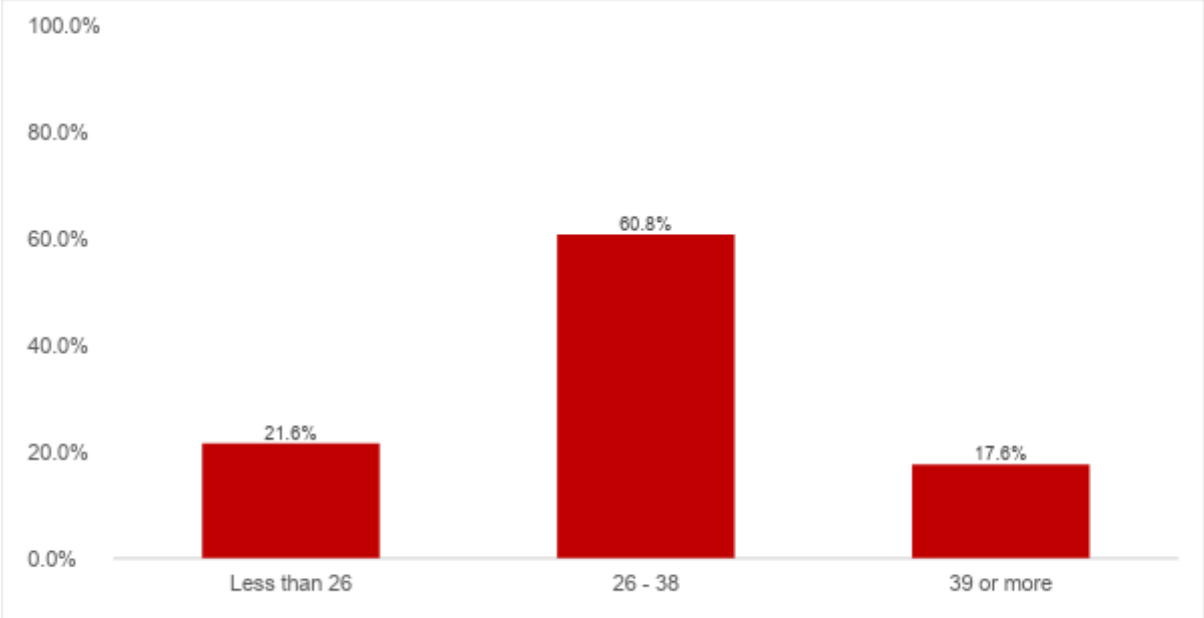

Figure 1: Knowledge score distribution (out of 52)

To investigate the relationship between the Knowledge Score and various factors, tests of association were conducted. There was a significant association between Knowledge Score and gender (p=0.02), prior training received in FGM (p=0.002), prior training received in form of video/seminar/pamphlet (p=0.003) and prior management of a patient who had undergone FGM (p=0.04). There was no significant association between Knowledge Score and age, level of O&G training, country of undergraduate medical training or the doctors' self-reported level of knowledge on FGM.

FEELINGS WHEN MANAGING FGM

When asked the question *'Describe how do / would you feel when managing patients who have undergone FGM?'* the most common themes were '*angry and upset'*, *'sympathetic and sorry for the patient', 'shocked'* and *'undertrained and not sure what to do'*. Figure 2 shows the most common themes.

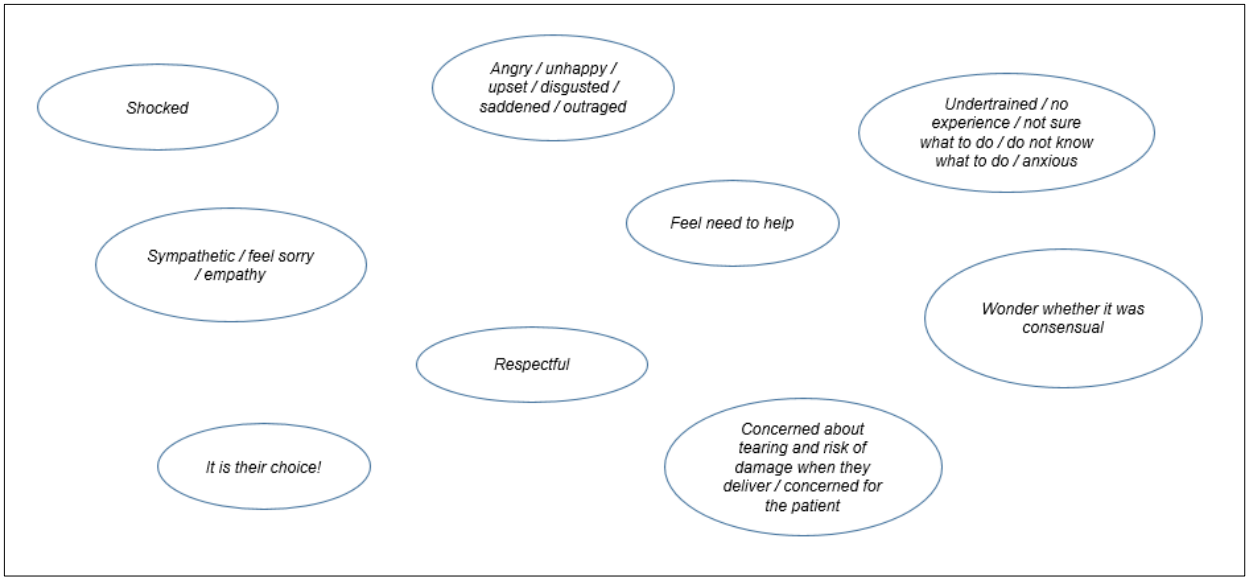

Figure 2: Common themes when doctors were asked about their feelings on FGM

The most common response from doctors was that they were unhappy and angry. Some of the statements that made included:

'Angry and upset by this form of torture. Conflicted when asked to perform re-infibulation after delivery in order to prevent inhumane methods used by her community…'.

'Sad and angry for the mutilation that the patient was forced to have'.

The next common response from doctors was empathy and sadness.

'Empathy for the patient as she has undergone a procedure she most likely did not consent to or understand at the time, which offers no benefit'.

'Sad that such practices still occur in parts of the world'.

'As a female, there is a feeling of anger and deep sorrow for the patient'.

Some of the statements made mention of the defense of women's and child rights:

'Incredibly saddened by the violation of their rights as women and human beings'.

'It feels unfair to do procedures like this on children who do not understand what is happening or the consequences of it'.

'It is always shocking that it is still practiced in some parts of the world. Make me feel angry but also sad for patients'.

Some doctors admitted they were unsure what they would do or felt under-trained for such cases:

'No experience as this has only in recent years been widely described and was not recognized in RSA during my years in training… I would probably feel angry at the perpetrators as well as the patient for submitting'.

'Not sure what to do…'.

DIFFICULTIES WHEN MANAGING FGM

When asked to '*Describe what difficulties are encountered when managing women who have undergone FGM'* the most common themes were '*difficulty in labour', 'difficulty doing vaginal examination', 'no difficulty', 'bleeding', 'tearing of scar tissue' and 'emotional trauma'*.

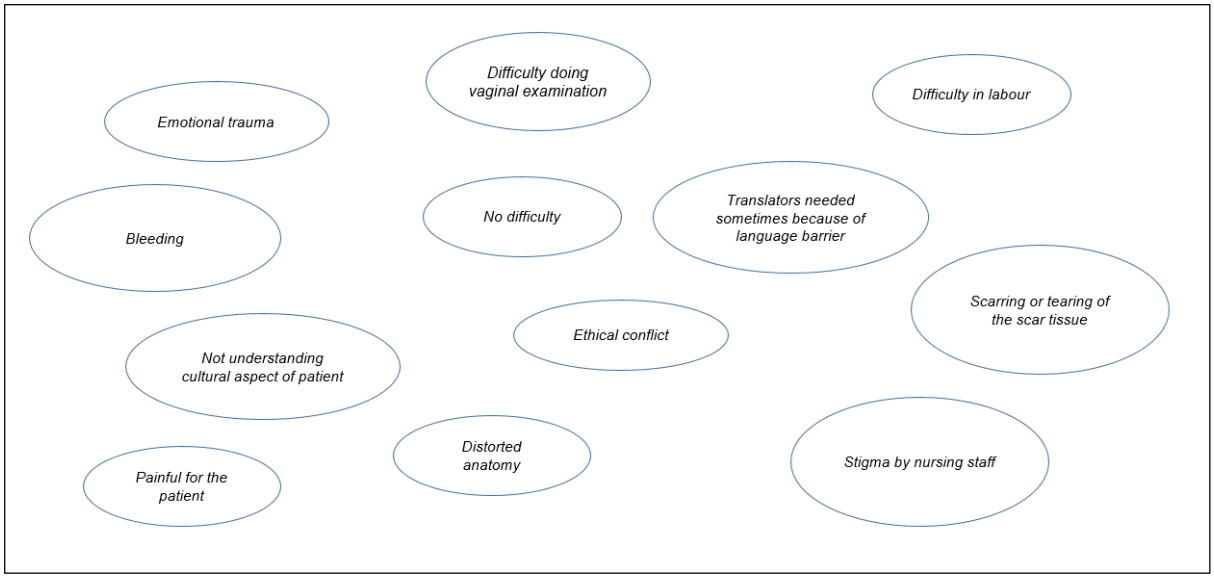

Figure 3: Common themes when doctors were asked about difficulties they have encountered managing women who have undergone FGM

Statements made by the doctors who had experienced difficulties in labour and in vaginal examinations included:

'Some find examination uncomfortable, some require extensive episiotomy'.

'Painful vaginal examinations and / or soft tissue dystocia at delivery'.

'Once had a patient who was having a termination of pregnancy with Type III FGM and introital opening was too small for assessment of cervical dilation'.

'Prevention of obstetric injuries and performing less risky delivery is difficult'.

In some cases doctors mentioned that patients experience emotional and psychological trauma:

'They experience severe psychological trauma'.

'Examination is difficult with the patient mentally scarred. It was painful for her'.

Other doctors stated that they struggle to understand and respect the cultural aspects of FGM:

'Not understanding the cultural aspect of women who underwent these procedures'.

'I struggle to respect their culture and beliefs'.

'Largely the indoctrination by the community that this is an acceptable practice'.

Some doctors stated that they have not experienced any difficulties:

'The few cases I have seen have presented no difficulties'.

'I was doing an NVD and she had Type I, so there was no immediate difficulty that was encountered'.

DISCUSSION

To date no prior study of this kind has been undertaken in South Africa with only 4 prior studies assessing O&G doctors worldwide. A systematic review showed limitations in the form of study quality, small sample size and low response rates.[7] This study experienced similar limitations to studies assessed in the systematic review.

The majority of the doctors (78.4%) had a Knowledge Score of more than 50% (Knowledge Score higher than 26). South African doctors had superior knowledge and skills in the identification and management of FGM when compared to only 26% of UK doctors with sufficient FGM/C knowledge.[7] 52.9% of South African doctors had received training in FGM during medical school. This is vastly different to Switzerland where FGM/C is not included in the undergraduate medical curriculum.[7]

All doctors should aim to further improve on their knowledge and skills in FGM. Additional research and training were recommended improve healthcare services to women affected by FGM.[7]

Many doctors were not aware of protocols and the ethical and legal implications of not complying with legislation. Although 79% of UK doctors were aware of FGM/C act, other gynaecologists in Belgium and Switzerland had minimal to no knowledge on FGM guidelines .[7]

Results showed the significance of Knowledge score relating to prior training in FGM regardless of the method and the prior management of a patient that had undergone FGM. This demonstrates the fundamental importance of improving medical school/registrar training in FGM, any additional training in FGM and clinical exposure to FGM. There was no significant association between Knowledge Score and age, level of O&G training, country of undergraduate medical training or the doctors' self-reported level of knowledge on FGM. As this type of analysis was not assessed in the systematic review[7], it is difficult to compare to this South African study.

Themes showed that South African doctors experienced similar feelings and difficulties when managing FGM when compared to prior literature.[7] Common themes while assessing feelings when managing FGM included: shock and anger, empathy and sadness, violation of human rights, suboptimal training in FGM, concerns about obstetric complications and concerns for the patient's welfare.

Common themes while assessing difficulties in managing FGM included: emotional and psychological trauma for doctors, difficulty understanding respecting cultural beliefs, difficulty in vaginal examinations and obstetric complications. Some clinicians experienced no difficulties when managing these patients.

LIMITATIONS OF THE STUDY

Non-response bias and small sample size were expected. The small sample size and low response rate makes it difficult to extrapolate results to a wider population. Those with limited knowledge were expected to either not undertake or not complete the questionnaire. Computer literacy, functional email address and affiliation to SASOG were required for participation in the study; this may have limited certain doctors from participating in the study.

Social acceptability bias was expected, as FGM is a controversial topic. Participants may have answered within the expected norm as opposed to their true knowledge, beliefs and attitudes.

As FGM is often missed, the proportion of participants that have not seen or managed a patient affected by FGM may be underestimated.

The use of themes found in prior literature to categorise the qualitative answers was used to eliminate confirmation bias by the researcher.

CONCLUSION

The majority of South African O&G doctors assessed have adequate FGM knowledge and experience comparable feelings and difficulties when managing patients that have undergone FGM.

Further research and additional training is recommended to improve healthcare services to women affected by FGM.

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