Abstract

Background: Female genital mutilation/cutting (FGM/C) is an illegal tradition commonly practiced in Sub-Saharan Africa and the Middle East. Despite a globalized world and developing social media, this harmful practice is currently still being implemented.

Aims: We aimed to evaluate the opinions of university students regarding FGM/C.

Methods: This descriptive study included 821 students who studied at Nyala University, Sudan, in January 2016. The students were questioned for the following: age, faculty, reasons for female circumcision, effects of female circumcision on female sexual functions and their views about the circumcision for their daughter.

Results: The rate of FGM/C among female university students was 80.1%. Although 73% of the male students prefer to marry uncircumcised women, they also reported that FGM/C should be continued to be performed, and their future daughters should be circumcised (64.5%). Female students were against FGM/C for their future daughters (77.6%).

Conclusions: This study shows that even educated individuals demand FGM/C in spite of knowing the harm. It is therefore suggested continuing educational studies on this subject.
Introduction

Female genital mutilation/cutting (FGM/C) refers to all procedures that include cutting, rupturing, sewing or removing the female external genital organs in accordance with traditional rules (1,2). Although it is called female circumcision in the countries where it is performed, in the medical literature due to the physical and psychological detrimental consequences this procedure is defined as mutilation (2,3).

The World Health Organization (WHO) has defined four main categories of such mutilation: 1) Partial or total removal of the clitoris and/or the prepuce (clitoridectomy); 2) partial or total removal of the clitoris and the labia minora, with or without excision of the labia majora (excision); 3) narrowing of the vaginal orifice with creation of a covering seal by cutting and appositioning the labia minora and/or the labia majora, with or without excision of the clitoris (infibulation); and 4) unclassified: all other harmful procedures to the female genitalia for non-medical purposes, for example, pricking, piercing, incising, scraping and cauterization (4).

According to current knowledge, more than 125 million women in the Middle East and Africa have undergone FGM/C. It is also estimated that more than 100 000 ethnic immigrant women from these countries have also undergone FGM/C in Europe (5,6). Each year there are two million new practices throughout the world (2). More than 90% of girls in Northern Sudan are subjected to the most severe form of FGM/C (type 3) (7).
Religion plays an important role in Sudan, with (97%) of the country's population adhering to Islam. Although it is a cultural practice and not connected to religion, at the village level those who commit the practice offer a mix of cultural and religious reasons for the practice. It is not completely known when and for what reason FGM/C was initiated. However, it was practiced in Ancient Egypt according to examination of mummies and recorded descriptions by Ancient Greek historians (8). In many African countries, virginity is the prerequisite for a marriage; FGM/C and especially its infibulation form (Type 3) decreases sexual desire in the female and thus the probability of premarital or extramarital sexual intercourse is also decreased. According to another claim, men insist on FGM/C for marriage and this fact leads to the consolidation of such a tradition in the population over the years.

FGM/C is usually performed secretly under unhygienic conditions with the aid of non-sterile tools, without anaesthesia and using knives, razor blades, or pieces of broken glass (9–11). The three most important early complications are pain, bleeding and infection (12). The late complications are infertility, vesicovaginal fistula, menstrual problems, chronic urinary track infections, chronic pelvic pain, increased risk of maternal and fetal morbidity and mortality due to prolonged childbirth (13,14).

Despite all efforts and legislation to stop FGM/C, it is observed that the procedure still has a high rate of prevalence. Since university students are expected to be better educated compared to the whole population, the present study was planned to determine the opinions of university students regarding FGM/C.

**Methods**

This cross-sectional descriptive type study included 409 male and 412 female students who were educated in various programmes of Nyala University in the State of South Darfur, Sudan. Questionnaires were distributed to the students in the classrooms over a period of four weeks in January 2016. Three volunteer female medical students questioned the females, and three volunteer male medical students questioned the males. Questionnaires were completed during face-to-face interviews. Response rate was 88% among all students. Students were questioned on the following: age, faculty of study, reasons for FGM/C, effects of FGM/C on female sexual function, and their views about FGM/C for their possible daughter in the future. Separately, male students were questioned about the preference of a female having undergone FGM/C for marriage; while female students were questioned about whether they had already undergone FGM/C. Questionnaire forms were prepared in English and in Arabic. The content validity of the instrument was confirmed in the scale’s content validity index (S-CVI), which was 0.88. Cronbach’s alpha was used to evaluate the stability and internal consistency of the tool. The overall Cronbach’s alpha of this questionnaire was 0.73. Informed consent was obtained from all participants. The Nyala University Ethics Committee approved the study protocol and survey. Statistical analyses of the data were performed using the Statistical Package for the Social
Results

Age, departments of students, and genital status of female students are illustrated in Table 1. The rate of FGM/C was 80.1%, and 93% of female students underwent the procedure between 5 and 12 years of age, with a mean age of 7.97 ± 2.49. All participating students were Muslim. The perspectives of the two groups regarding the reasons for FGM/C were different, as shown in Table 2. Male students mostly indicated religious beliefs as the most important reason (59.7%), while it was reported to be the least important reason by female students (10.9%). Female students mostly indicated traditional beliefs as the most important reason for FGM/C (64.2%). The difference in views between sexes was statistically significant (P < 0.001).

Both groups reported that FGM/C negatively affects female sexual function (males 87.8%, females 89.1%). However, male students reported that FGM/C should be performed and their daughters should undergo the procedure in the future (64.5%), whereas female students reported that they were against such a procedure for their daughter in the future (77.6%). This ratio was higher among female students who had undergone FGM/C (85.1%). The difference between sexes for this question was statistically significant (P < 0.001). Although male students emphasized the necessity of FGM/C their daughter, they reported that they would prefer to marry women who had not undergone FGM/C (73%). There were also statistically significant differences between faculties and opinions about FGM/C of a future daughter. Most of the students who studied medicine (84%) and education (72%) were against FGM/C of their future daughter, whereas the ratio fell in economics (55%), law (53%), engineering (51%) and veterinary (49%).

Discussion

FGM/C is a widely performed procedure in Africa. It is estimated that approximately three million girls undergo FGM/C each year (14,15). WHO, UNICEF, United Nations (UN) and many other organizations that are against the procedure have been studying its prevention procedure for many years and there are currently ongoing studies. Sudan is the first African country that banned FGM/C, with Type 3 (infibulation) outlawed in 1946, according to the Sudan penal code. In 1974, new legislation meant that FGM/C performers and those who allow it are sentenced to imprisonment for up to five years (16). However, all these efforts and legal regulations have not stopped this procedure and FGM/C is still widely performed in Sudan. The ratio of FGM/C in married Sudanese women was reported to be 89% (6). This ratio is reported to be 65% in the Darfur district, but reaches 99% in some northern states (17). In the current study the rate of FGM/C among female university students was 80.1%. This result was equally as high as
previously reported for community-based ratios and thus, it indicates that family social status and level of education does not affect the decision to perform FGM/C.

Male students reported religious belief as the main reason for FGM/C, whereas female students considered traditional beliefs to be the most important factor. However, many previous studies indicate that FGM/C is performed at high rates not only in Islamic countries but also in populations with different religious beliefs and in African populations that have no religious beliefs (18,19). It is also known that Islam’s holy book, the Quran, does not have any mention in regard to the practice. Islamic scholars disagree on FGM/C; some say that no obligatory rules exist while others refer to the mention of female FGM/C in the Hadiths (sayings, actions and approvals of Islam’s Prophet Muhammad). The part of the Quran cited as evidence in support of FGM/C is the same justification for male circumcision, which is confirmed from the way of life of the Prophet Muhammad. There is nothing to prove that females underwent FGM/C during their lifetime in the Islamic period and FGM/C is a cultural practice in communities that observe it, and it is wrong to associate Islam with such a harmful practice (20). It can therefore be understood from the responses of male students that inaccurate beliefs were present in regard to this subject. The opinions of female students about the reasons for FGM/C were similar to a previous study in which participants were selected randomly from those who attended a hospital (21).

The main reason for FGM/C is the suppression of female sexuality in order to uphold the insistence for virginity, family honour and the belief that males hold a preference for women having undergone FGM/C for marriage. However, in the current study 73% of male students reported that they would prefer woman who had not undergone FGM/C for marriage. As a result, we can conclude that although male students were aware of the harmful effects of FGM/C on female sexual health, they could not exercise free will in this matter due to social pressure.

A substantial proportion of women subjected to FGM/C experience sexual dysfunction and the anatomical extent of FGM/C is related to its severity (22). In our study we found that 87.8% of male students and 89.1% of female students replied that FGM/C negatively affects the female’s sex life. However, 64.5% of male students reported that they would have their daughters undergo FGM/C in the future; this is a self-contradicting result. Male students wished this procedure to be performed even though they were aware of its associated harm. Social pressure and conventions still play a very powerful role for families in Sudan. Some Sudanese people hold the belief that women who have not undergone FGM/C exhibit continual extreme sexual desire and run a high risk of being unfaithful to their husbands. As a result, such girls could be targets for abuse in their schools and social environments. Females that have not undergone FGM/C are often teased and called ‘ghalfa’, a term that refers to a promiscuous woman. Thus, it is considered that a woman will only be faithful if she has undergone FGM/C.
While attempting to achieve the presumed benefit a reduced libido, the procedure has a negative impact on a woman’s overall sexual life. FGM/C deprives women of the ability to achieve sexual satisfaction and denies them their right to sexual health, sexual pleasure and the achievement of full psychophysical well-being (23). In order to protect their daughters from sexual abuse and with concern for their virginity before marriage, families choose to have their daughters undergo FGM/C. This persists despite the high level of awareness of the negative health effects of FGM/C that were recorded in the educated population. Our study shows that education did not overcome these beliefs and harmful cultural traditions. The majority of students in medicine and education declared they would not allow FGM/C of their future daughter, while students studying engineering and economics showed less negativity about the procedure and this could be due to ignorance about the subject. It is also noteworthy that nearly half of law and veterinary students did not oppose the FGM/C; it was expected the majority of such students would be against FGM/C because of their affiliation with jurisprudence and health sciences. This result implies that relevant education should be given before university.

Sudan is the first African country to put in place laws against FGM/C. One limitation of our study was that the awareness of such legislation among students was not investigated. Additional studies are needed in order to evaluate this. A second limitation of our study is that we did not assess female students’ experience with FGM/C and how this may have affected their response to the questionnaire.

Conclusion

FGM/C is a procedure that negatively affects women’s sexual life and ability to achieve sexual satisfaction. It is accepted as an assault on the human rights of women by WHO. However, it is still currently performed in quite high rates, as also determined in this study. It is clear that beliefs and traditions play a prominent role in this procedure, since even educated university students demand it to be performed in spite of knowing the harm. This indicates a need to develop effective strategies to increase knowledge toward FGM/C at school level. It is therefore concluded that educational studies on this subject and studies on awareness of legislation must be continued.

Funding: None.

Competing interests: None declared.
References


20. Asmani IL, Abdi MS. De-linking Female genital mutilation/cutting from Islam.