Journal of Natural Sciences Research www.iiste.org
ISSN 2224-3186 (Paper) ISSN 2225-0921 (Online)
Vol.6, No.17, 2016

University Students' Perception, Knowledge and Believes towards Female Genital Mutilation in the Sudan

Zeinab Abu Sabeeb Wajed Hatamleh
Center for Health Studies/ Prince Sultan Military Medical City

Abstract
Background: Female genital mutilation (FGM) is the partial or total cutting away of the female external genitalia; its consequences vary considerably by the type. Objective: to assess the knowledge, beliefs and perception of Al Ribat university students/ Sudan regarding FGM and comparison between female and male students was done.Methods: A cross-sectional study with detailed pretested questionnaires designed to elicit information on the views and opinions of 105 convenient samples was conducted in November 2013. Result: The vast majority of the respondents were found to be aware of the complications of FGM, 74% of the female respondents had undergone FGM, and however, the study revealed that 85.7 % of the male students preferred to marry uncircumcised women over circumcised ones. About 72.7% and 75 % of the females and males respectively supported the non-continuation of FGM. Conclusion: The views, attitudes and perceptions expressed by the university students was so impressive but still a substantial effort should be made to raise the awareness among the community, any action against FGC should take into account the multiplicity of reasons that support and motivate its practice, Government and stakeholder should state clear ministerial decree to end FGM and made it punishable by fine and imprisonment.
Keywords: FMG, FC, Pharaonic and HIV

Introduction

Female genital mutilation (FGM), is an unnecessary and illegal practice that causes significant physical, mental and emotional harm, it is the collective name given to traditional practices that involve partial or total cutting away of the female external genitalia whether for cultural or other non-therapeutic reasons (Toubia N.,1993). External genitals include the clitoris, labia, mons pubis (the fatty tissue over the pubic bone), and the urethral and vaginal openings, typically carried out by a traditional circumciser with a blade or razor, with or without anesthesia. The practice of FGM is often called "female circumcision" (FC), and most girls undergo FGM when they are between 7 and 10 years old, some women undergo FGM during early adulthood when marrying into a community that practices FGM or just before or after the birth of a first child. Types of female circumcision vary from culture to culture and from region to region. In 1995, the World Health Organization (WHO) developed four broad categories for FGM operations (Toubia N., 1993).; type 1 excision (removal) of the clitoral hood with or without removal of part or the entire clitoris, type 2 is the removal of the clitoris together with part or all of the labia minora, type 3 is called infibulation; it is the removal of part or all of the external genitalia (clitoris, labia minora, and labia majora) and stitching and/or narrowing of the vaginal opening leaving a small hole for urine and menstrual flow, type 4 unclassified, it involves scarification of the hood of the clitoris, labia minora and vagina, it also includes pricking, piercing, or stretching of the clitoris /or labia. In Sudan, Type 1 is known as Sunna, and generally entails only removal of the tip of the prepuce. Type 2 is referred to as Matwasat (intermediate), and Type 3 is known as Pharaonic. Type I and Type II operations account for 85 percent of all FGM. Type III (infibulation) is common in Djibouti, Somalia and parts of Sudan and in parts of Egypt, Ethiopia, Kenya, Mali, Mauritania, Niger, Nigeria, and Senegal (Hosken, F., 1993). Female circumcision is not associated with any one religious group, it is practiced by Muslims, Christians, Jews and members of indigenous African religions (Chelala C., 1998). Muslim theologians state that there is no explicit support for the practice in the Koran -Muslims Holy Book- (Rushwan, 2000, Toubia N., 1993).

The immediate, short-term and late complications of FGM depend on several factors, principally the type of FGM performed. Factors include whether the practitioner had medical training, whether unsterilized or surgical single-use instruments were used, whether surgical thread was used instead of agave or acacia thorns, and whether antibiotics were available. In the case of Type III, other factors include how small a hole was left for the passage of urine and menstrual blood. Jasmine Abdulcadir, a Swiss gynecologist who offers specialist services to women with FGM, writes that, immediate complications include fatal bleeding, anemia, acute urinary retention, urinary infection, wound infection, septicemia, tetanus, and transmission of hepatitis or HIV if instruments are non-sterile or reused (Abdulcadira J. et al, 2011). Short-term complications include necrotizing fasciitis (flesh-eating disease), delay in wound healing due to infection, endometritis and hepatitis (Kelly E. et al 2005). Late complications vary depending on the type of FGM performed. Jasmine Abdulcadir, stated that, the common complication with infibulation is painful periods, because the menstrual flow has been obstructed. Blood can collect and stagnate in the vagina and uterus. There may be difficult and painful urination; urine may collect underneath the scar and cause small stones to form. In an infibulated virgin the opening is 2–3 mm; in

women who are sexually active or have given birth by vaginal delivery, the hole is larger but the urethra opening may still be obstructed by scar tissue (Abdulcadira J. et al, 2011). There may be damage to the urethra and bladder, leading to infections and incontinence, pain during sexual intercourse and infertility (Kelly E. et al 2005). Other complications include epidermoid cysts that may become infected, and neuroma formation (growth of nerve tissue) involving nerves that supplied the clitoris (Amish J.et al, 2011). Obioma Nnaemeka argues that the crucial question, broader than FGM, is why the female body is subjected to so much "abuse and indignity" around the world, including in the West (Nnaemeka O.,2005). Several authors have drawn a parallel between FGM and cosmetic procedures (Johnsdotter S. and Essén B., 2010). Ronán Conroy of the Royal College of Surgeons in Ireland wrote in 2006 that cosmetic genital procedures were "driving the advance of female genital mutilation" by encouraging women to see natural variations as defects (Ronán M. (2006).

FGM is practiced in at least 26 of 43 African countries (Toubia, N.,1993), the prevalence varies from 98% in Somalia to 5% in Zaire. A review of country-specific Demographic and Health Surveys (DHS) shows FGM prevalence rates of 97% in Egypt, 94.5 %in Eritrea, 93.7% in Mali (Calverton MD, 1995), 89.2% in Sudan and 43.4% in the CAR (Calverton MD, 1990). FGM is also found among some ethnic groups in Oman, the United Arab Emirates, and Yemen, as well as in parts of India, Indonesia, and Malaysia. FGM has become an important issue in Australia, Canada, England, France, and the United States due to the continuation of the practice by immigrants from countries where FGM is common (Toubia, N.,1993).

FGM is highly prevalent in Sudan; Findings from the 1989-1990 Sudan Demographic and Health Survey (SDHS) indicate that 89% of ever-married women have undergone some form of genital cutting, varying from 65% in Darfur Region to almost 99% in the Northern Region (Sudan Department of Statistics, 1991). The aim of this study was to investigate the knowledge, beliefs and perception of university students / Sudan, and to introduce female genital mutilation as one of the social problems that affects women and young girls, in the context of child protection and women's rights, and to review the previous literature on the topic to answer the following questions;

What kinds of reasons are there to practice female genital mutilation?

How female genital mutilation violates the rights of women and children?

Materials and Methods

A cross-sectional study of a convenient sample of male and female students was conducted at Al Ribat University/ Sudan, in November 2013. A detailed pretested questionnaire reviewed by expert research panel was used, the questionnaire designed to elicit information on the views and opinions of female and male students of Nursing, and Dental colleges on female genital mutilation, questionnaires were distributed to 115 male and female students by hand, and were given one week period for completion and submission of the questionnaire. Questions were written in English and Arabic translation was also provided if needed. The questionnaires included socio-demographic details, as well as questions that assessed students' knowledge and attitude towards FGM. Information of the socio-demographic part included characteristics such as; age, gender, marital status, religion and the name of the college. The students were asked whether they favored female circumcision and were asked to give reasons if they favored it; such as religious reasons, social, sexual, cultural or other reasons, social, sexual, cultural or other reasons. The students were asked also to highlight the complications of FGM, and whether FGM is legal or whether it was recommended by their religion. Female students were asked if they themselves were circumcised and whether this would affect their chances of getting married? Circumcised females were asked to identify the person who was behind the performing of their circumcision. By contrast, male participants were asked if they would prefer to marry women who were circumcised or uncircumcised. Both males and females were asked whether they support the continuation of this practice, and if they had any other further comments. Students were asked to return the questionnaires to a designated collection point.

Ethical consideration

Ethical considerations were addressed at the beginning, before starting the questionnaire, informed verbal consent was obtained, any sensitive issues that could have been distressing to the participants were considered. To ensure confidentiality of the participant's welfare; their identities were protected, any name used had been erased and the filled questionnaire were dropped in a box.

Data analysis

The data generated from the validated questionnaires were double checked and coded according to the questions before analysis, then entered into a computer database and analyzed using SPSS version 20. Means and proportions for the socio-demographic characteristics were compared between the female and male students using Parametric two sample t test and Chi-squares for analyzing categorical variables, and $P<0.05$ was considered significant.

Result

One hundred and ten (115) questionnaires were administered to the students, 105 completed questionnaires were returned; giving a response rate of 91.3%. Hundred percent of the responders were Muslims. The number of females to males in this study was 77) 73.3%) to 28 (26.7%) respectively. The age range of the students in this study was 20-25years, age group 20-22years constituted the majority of the respondents (95.2%) and those aged >23-25 years accounting for 4.8% of the respondents. The mean age of the female respondents was 21.14 years (SD 1.16) and 22.32 years with SD 1.887 for the male respondents. The marital status of the female respondents is approximately 91% were single, while7 female students were married, but all the male respondents were single.

The vast majority of the female respondents (80 %) and males (25%), identified the; menstrual problems as a complication of FGM, followed by labor problem for 79.2% and 50% of females and males respectively then those who thought FGM decreases the sexual pleasure 67.5% of the females and 50% of the male respondents, while 65.1 % of the females and 66.4% of the males identified that FGM can increase the chance of HIV infection. The least proportion of the respondents (2.6%of the females and 14.3% of the males), did not know whether FGM can cause complications.

The feelings expressed by the female students concerning the circumcision is that; only 19.5 % were favored of the circumcision, versus 17.9 % of the male respondents; with no significance difference between the two genders ($p = 0.20$), but those who don't know among males are more than the females; 17.9% and 3.9% respectively. There were various combined reasons behind favoring FGM, and most of the students had combined reasons; cultural reason constitute 33.3 % of the females respondents compared to 60% of the males, and those who favored FGM for sexual reason were 46.7% of the females and 40% of the males while 46.7% of the females and 80% of the males pertained that to religious reason, the social reason was the most combined factor for all the female respondents who favored the FGM (100%) versus 80 % of the male respondents who favoured FC.

Although 74% of the female respondents had undergone FGM, but only 21% of them believed that being circumcised will increase the chance of getting married, while 62.3 % were unsure to whether this would affect their chances of marriage. However, the study revealed that the grandmothers (35.1%) and mothers (32.4%) have the higher responsibility in taking the decision of FGM for their daughters than the fathers (5.8%) and other people apart from the parents and the grandmothers who influence the practice were 25.7%. Out of 28 males in this study, 24 (85.7 %) preferred to marry uncircumcised women over circumcised ones while only one male preferred to marry a circumcised female, and three males don't know. 75.3% and 75 % of the females and males respectively supported the non-continuation of FGM, with no significant difference between the two gender regarding the abolishing of the FGM, whereas only 14.3 % of the females and 10.7 of the males supported the continuation of this practice in the future, being statistically significant difference between the two parties of those who support the non-continuation and those who support the continuation regardless the gender ($p= 0.001$). The reasons for non-willing to practice FGM in the future mentioned by 72.6% of the females that it is against the law while 7.8% don't know about the law, only 35.7 % of the males mentioned that FGM is against the law, this difference is statistically significant ($p<0.002$). Out of 28 males 20 of them (71.4%) mentioned that FGM is not recommended by religion while 17.9% of them don't know, being no much discrepancy with the female, as those who don't know was 16.9% and those who admitted it is not recommended by the religion was 63.6%. Only 19.5% and 10.7 of the female and male participants respectively preferred the practice FGM because they think it is supported by the religion; Tables 3.1.

Discussion

A previous study in the Sudan, 1983 revealed that 16.4 percent of women who had the operation of FGM experienced recurrent urinary tract infections (Rushwan, 2000), and in Sub-Saharan Africa there is increase in HIV infection (Abdallah TM. et al, 2012). In this study, the majority of the respondents; had a good knowledge of the negative health effects a of female circumcision, most of the students were aware of the increased chance of HIV infection, and 80% of the male students were not in favor of FC for sexual reasons and 67.5% of their counterpart claimed that FGM cause sexual complications, this result is in line with other studies which found the vast majority of the respondents have an opinion that FGM decreases the sexual pleasure, the scar of the mutilated genitalia leads to painful coitus and thus adverse effect concerning the sexual feeling (Rigmor C. et al, 2013). However Okonofua and his colleagues reported that FGM did not attenuate sexual feeling and that it may predispose women to adverse sexuality outcomes such as early pregnancy and genital tract infection (Okonofua FE. et al, 2002). All the married female students in this study claimed that they undergone some complications of labor, and almost 80% of the females respondents were aware of the labor complication that caused by FGM. Jasmine Abdulcadir, the Swiss gynecologist had mentioned that, FGM may complicate pregnancy and place women at higher risk for obstetrical problems, which are more common with the more extensive FGM procedures, cervical evaluation during labor may be impeded and labor prolonged, third-degree laceration, anal-

sphincter damage and emergency caesarean section are more common in infibulated women (Abdulcadira J., et al, 2011). In women with Type III who have developed vesicovaginal or rectovaginal fistulae (holes that allow urine or faeces to seep into the vagina, it is difficult to obtain clear urine samples as part of prenatal care, making the diagnosis of conditions such as pre-eclampsia harder (Kelly E., et al, 2005). Neonatal mortality is increased, WHO estimated in 2006 that an additional 10–20 babies die per 1,000 deliveries as a result of FGM, the estimation was based on a study conducted on 28,393 women attending delivery wards at 28 obstetric centers in Burkina Faso, Ghana, Kenya, Nigeria, Senegal and Sudan, in those settings all types of FGM were found to pose an increased risk of death to the baby, 15 percent higher for Type I, 32 percent for Type II and 55 percent for Type III (Banks E., 2006).

Despite the awareness of the FGM complications still some few students either favored FGM or were not sure about it, this practice is deeply rooted in cultural and in the Sudanese traditions, so it is not surprising to find 80% of male respondents who support the FGM and 100% of female respondents attributed this practice to social reasons. It was reported by Mazharulislam and Moslehuddin that, the strong social pressure maintains high level of circumcision, which believed to promote premarital chastity among women. Given their lack of choice and the powerful influence of tradition, most women accept circumcision as a necessary, and even natural, part of life, and adopt the rationales given for its existence (Mazharulislam M. and Moslehuddin M., 2001).

This study also showed a significant proportion of the circumcised subjects were not happy with their status, this may be due to the fact that some of them have experienced some of the complications known to be associated with female genital mutilation. In most areas in Sudan uncircumcised girl is viewed as odd and unmarriageable (Islam M. and Uddin MM., 2001), in this study 74% of the female respondents had undergone FGM, this result would be a better indicator of the magnitude of the problem, but despite this result, the other findings showed a promising attitude as the majority of the students would want to see the practice of FGM abolished, so they supported the non-continuation of FGM (72.7% and 75 % of the females and males respectively). It is interesting to find that 85.7 % of the males preferred to marry uncircumcised women, this finding represents a change in attitude, perception of males to the female mutilation and it refuted the traditional argument that circumcised females are more likely to get married when compared to their uncircumcised counterparts. In a recent qualitative study among Somali in Oslo reports that Somali men in Norway tend to prefer marrying uncircumcised women (Gele AA. et al, 2012). Even though in a prior study among Somali youth in the Somalia found that males are more likely to support the continuation of FC (Morison L. et al, 2004). The difference in relation to the attitudes toward FC between Somali men in Somalia and their counterparts in Norway may be partially explained by factors related to the social environment in Norway, which is different than the social context in Somalia. The role of women in ensuring that the practice continues was highlighted in our study, mothers and grandmothers were responsible for the majority of the decisions; mothers 65% grandmothers 52%, while the fathers played minor roles as decision-makers for this procedure (21%). This is a conflicting message, when we consider that women are the main ones who suffer the consequences of FGM. Still, women's attitudes toward FC can be one of the major bottlenecks in FC programs in Sudan, where the issue of FC is widely considered as a women's issue, being illiterate for many old women and young women, not knowing the consequences caused by female genital mutilation has so far enabled the practice to go on in Sudan. Unlike other African countries such as Kenya, Gambia, Mali and Senegal, where men are considered as major stakeholders in FC programs, a prior qualitative study in Mali and Burkina Faso indicates that men recognize that this practice will not be abandoned without their involvement (A Gele1 A. et al, 2013).

The results of this study indicate a promising decline in this practice, it is important to note that the attitude and awareness towards FGM of this young age group reflect the impact of on-going campaigns, It is evident from our data that, the majority of the educated university students would not want this practice to continue, but we are aware that if this survey was performed in a different setting in the Sudan, would have many different results, because education broadens one's outlook on life and increases one's ability to understand more complex information and question attitudes, beliefs and practices.

Conclusion

FGM is recognized as a violation of human and child's rights as outlawed in many countries, but the laws are poorly enforced; a substantial efforts should be directed towards integrating appropriate information on FGM in literacy classes and other public awareness programs, although this awareness about the harmful effects and complications caused by FGM is important but it is not enough as this practice is deeply rooted in cultural and in the traditions, any action against FC should take into account the multiplicity of reasons that support and motivate its practice, awareness campaigns need to include topics on human rights violations also there should be a support by law, and a fatwa or Islamic law because some people belief that this practice is a religious requirement. Government and stakeholder should state clear ministerial decree to end this practice and made it punishable by fine and imprisonment, doctors and midwives should be prohibited from performing the procedure, Perpetrators should lose their work license and be subjected to criminal punishment.

Acknowledgement
We are grateful to the students who participated in this study.

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Table 3.1 The Students Response to the Questionnaire

Question	Females (n = 28)	Males (n = 77)
Mean age (Years)	21.14SD =1.167	=1.887SD =22.32
Does your religion recommend female circumcision	Yes=19.5% No=63.6% Not sure =16.9	Yes=10.7% No=71.4% Not sure =17.9%
Is female circumcision against law?	Yes=76.6% No=15.6% Not sure =7.8	Yes=35.7% No=35.7% Not sure=28.6%
Awareness of the complications caused by FGM (menstrual problems, FGM decreases the sexual pleasure, increase the risk of HIV transmission and labor complications	Menstruation= 80.5% Sexual= 67.5 % Increase HIV transmission =65.1% Labor=79.2% No complication=2.6	Menstruation =25% Sexual=54.3% Increase HIV transmission= 66.4% Labor=50% No Comp=14.3
Are you in favor of female circumcision?	Yes=19.5% No=76.6% Not sure= 3.9	Yes=17.9% No=64.3% Not sure=17.9=
If favor, why?		
Religious reasons	46.7%	%80
social reasons	100%	80%
Sexual reasons	46.7%	40%
Cultural reasons	33.3%	60%
Female student: Are you circumcised?		Yes=74.03% No=25.97% No answer= 0
If yes who did the procedure?		Doctor=35.1% midwife=61.4% other= 3.5%
Where was it done?		Government Health care facilities =0% Non-Government Health care facilities =35.1% Homes = 64.9 Don't know = 0

Question	Females (n = 28)	Males (n = 77)
Circumcised female: Who took the decision to get you circumcised?		Father=6.8% Mother=32.4% Grandmother=35.1% Others=25.7%
Female student: What effect do you think female circumcision would have on your chance of marriage?		Increase= 20.8% Reduce= 16.9% Don't know=62.3%
Male student: Do you prefer a circumcised female?	Circumcised=3.6 Non- Circumcised=85.7 No difference=10.7	
Do you think this practice should continue?	Yes=14.3% No=75.3% Not sure =10.4	Yes=10.7% No=75% Not sure =14.3%