The Global Online Sexuality Survey: Public Perception of Female Genital Cutting among Internet Users in the Middle East

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ABSTRACT

Introduction. Female genital cutting (FGC) is a ritual involving cutting part or all of the female external genitalia, performed primarily in Africa. Understanding the motivation behind FGC whether religious or otherwise is important for formulating the anti-FGC messages in prevention and awareness campaigns.
Aim. The study aims to provide an investigation of opinion over FGC, the root motive/s behind it, in addition to the current prevalence of FGC among Internet users in the Middle East.
Methods. The Global Online Sexuality Survey was undertaken in the Middle East via paid advertising on Facebook®, comprising 146 questions.
Main Outcome Measures. The main outcomes are the prevalence of and public opinion on FGC among Internet users.
Results. 31.6% of 992 participants experienced FGC at an average age of 9.6 ± 3.5 years, mostly in Egypt (50.2%). FGC was performed among both Muslims (36.9%) and Christians (18.8%), more in rural areas (78.7%) than urban (47.4%), and was performed primarily by doctors (54.7%) and nurses (9.5%). Whether or not it is necessary for female chastity, FGC was reported as highly necessary (22.5%), and necessary (21.6%). This was more among males, particularly among those with rural origin, with no difference as per educational level. This is in contrast to only 3.7% regarding FGC as a mandate of Islam. Religious opinion among Muslims was: 55.4% anti-FGC and 44.6% pro-FGC.
Conclusion. An important motivation driving FGC seems to be males seeking female chastity rather than religion, especially with FGC not being an Islamic mandate, not to undermine the importance of religion among other motives. School and university education were void of an effective anti-FGC message, which should be addressed. There is a shift toward doctors and nurses for performing FGC, which is both a threat and an opportunity. We propose that the primary message against FGC should be delivered by medical and paramedical personnel who can deliver a balanced and confidential message. **Shaeer O and Shaeer E. The Global Online Sexuality Survey: Public perception of female genital cutting among Internet users in the Middle East. J Sex Med **;**:**–**.**

Key Words. Female Genital Cutting; Female Genital Mutilation; Prevalence; Islam; Middle East; Egypt

Introduction

According to the World Health Organization (WHO), female genital mutilation (FGM) includes procedures that intentionally alter or cause injury to the female genital organs for non-medical reasons. Approximately 140 million females worldwide have been exposed to some kind of female genital cutting (FGC), including around 92 million girls at or above the age of 10 in Africa [1].

Various terms have been used to describe the act. "Female circumcision" is one of those terms, being the English translation from many African languages. However, the term circumcision may give the impression that male and female circumcisions are similar. In fact, what is referred to as female circumcision is anatomically more extensive than male circumcision [2]. FGM is the term used by most United Nations documents to identify the harmful consequences of the act. Some community organizations and many literature reports use the term "female genital cutting" as being less hurting to victims and less provocative to proponents of the act, while others argue that it does not cover all forms such as appositioning, suturing, or bringing the two sides of the labia majora together [3].

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Several studies have been published evaluating the general prevalence of FGC in various parts of the world. In a WHO report on FGC between the years 2000 and 2009, the prevalence from large-scale surveys in Africa and Yemen among females 15–49 years old was estimated. Egypt and Sudan had the highest prevalence rates (91% and 90%, respectively). Other African countries showing high prevalence (>75%) included Djibouti, Eritrea, Gambia, Guinea, Mali, Sierra Leone, and Somalia. Lower prevalence was seen in some other African countries as Liberia (58%), Chad and Guinea Bissau (44%), Cote d'lvoire (36%), Central African Republic (25%), Benin (12%), Kenya (27%), Nigeria (29%), Senegal (28%), and Tanzania (14%), while Cameroon, Ghana, Niger, Togo, and Uganda showed much lower prevalence at <10% [4]. In Western communities, FGC has been a subject of much concern especially in countries with expanding immigrant communities [5,6].

FGC has a long-standing tradition involving heads of families strongly supporting FGC for various reasons, and younger generations following, to the extent of—sometimes—giving back brides when discovering that they are uncircumcised. Traditions are often more difficult to be stopped. However, in order to argue against tradition, the root motivation/s needs to be identified and addressed. This is crucial for designing preventive awareness campaigns that address the real drive behind FGC, be it religion, culture, or otherwise, especially that this motive may vary with country, culture, religion, educational level, and gender, among other variables. It is our opinion that the message in awareness campaigns should be individualized accordingly, if they are to be effective, and that there should be prioritization in designing the message according to the root motive behind FGC.

This study utilizes an online survey launched in the Middle East to investigate opinion over FGC, the root motive behind it, in addition to the current prevalence of FGC among females in the reproductive age. These data are examined among literate Internet users that are—theoretically speaking—expected to bear a more informed opinion against FGC. Data on opinion over FGC are stratified by gender, religion, and educational level.

Methods

The Global Online Sexuality Survey (GOSS) [7–11] is an Internet-based survey investigating various aspects of male and female sexual function. Author-funded advertising campaigns on Facebook® invite web surfers to participate. The only inclusion criterion is for the participant to be over 18 years of age. This version of GOSS was first launched in the Middle East in 2010. The survey starts with an introduction that explains its nature, followed by a consent question. In addition to demographics, medical data and data on sexual function and dysfunction, the survey included questions over whether female participants have experienced FGC, at what age, who performed it, with or without anesthesia, what the consequences were, whether or not they would have had it performed if they had the choice, and whether they did or intended to have it performed to their daughters. Male and female participants were asked about their opinion on the motives for FGC. Open-ended questions were employed in a pilot study (n = 300) to identify the specific items to inquire upon as regards opinion and motivation. Guided by the results of the pilot study, participants were asked about their perception of the religious verdict on FGC and its role in female chastity, reported on a rating scale, as well as their information on the expected extent of cutting. The survey was not put through Internal Review Board evaluation before deployment as it was not performed through an academic institute.

Results

Nine hundred and ninety-two females replied to the survey questions with regard their personal experience with FGC (Sample-1, 34%). There were 1957 participants who completed the survey questions concerning opinion over FGC (Sample-2), comprising 67% males and 33% females. Average age in sample-1 was 29.1 years ± 8.1, while in sample-2 it was 30.4 ± 8.7 among males and 26.5 ± 6 among females, collectively being 28 ± 6.1 years. Questions for sample-2 were formulated as guided by the results of pilot open-ended questions posed to 300 participants, which identified religion and chastity-related factors in 98.7%.

Most participants came from Egypt (53.5% in sample-1, 54.6% in sample-2), followed by Saudi Arabia (21.3% and 17.6%, respectively), followed by the rest of the Arabic-speaking countries in the Middle East (Algeria, Libya, Yemen, Jordan, Morocco, Syria, Emirates, Sudan, Palestine, Bahrain, Kuwait, Lebanon, Iraq, Tunisia, and Qatar, in descending order). Most of the partici-

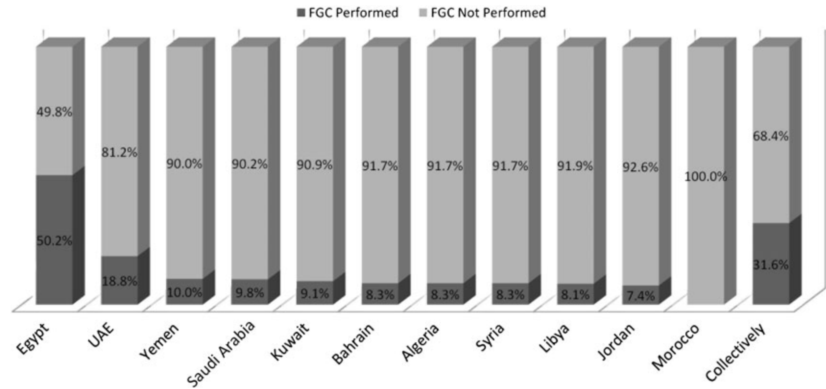

Figure 1 Personal experience of female genital cutting (FGC) by country

pants reported an urban origin (89.8% and 83.2%, respectively) vs. rural origin. The majority of participants received university education (74.7% and 74.9% of sample-1 and sample-2, respectively), followed by school education (15.1% and 16.1%, respectively) and postgraduate education (10.2% and 9%, respectively). Muslims comprised 92% of sample-1 and 94.4% of sample-2, while Christians comprised 8% and 5.6%, respectively.

With regard to the prevalence of FGC, 31.6% of sample-1 reported having sustained FGC, 64.7% stated they have not, and 3.7% did not know whether or not they had been exposed to it. FGC was more frequently reported among Muslims (36.9%) in comparison with Christians (18.8%). The practice of FGC was most frequent in Egypt (50.2%), down to null in Morocco and Palestine, with variable prevalence in between (Figure 1). Its prevalence was higher among those of rural origin (78.7%) compared with urban origin (47.4%) ($P = 0.016$). FGC was more common among those confined to school education (64.6%), and still common among those who had postgraduate education (52.3%) and university education (48.2%).

The average age at which FGC had been performed was 9.6 ± 3.5 years, the range being since birth up to the age of 20 years, with the majority encountering FGC within the age range of 5–11 (64.2%), and the minority below the age of 1 and above the age of 15 years (4.2% each) (Figure 2).

The majority of cases of FGC were performed by doctors (54.7%), less by traditional midwives (19%), nurses (9.5%), and least by barbers (3.9%). There were 10.4% who reported that they did not know who performed FGC to them, and 2.5% reported an unspecified "other." When asked about receiving anesthesia during the procedure, 62.9% stated that they were anesthetized, 20.9% said they were not, and 16.2% did not know. As for reported consequences, 25.5% suffered pain, 11.1% suffered bleeding, and 10% had urinary problems. There were 53% who reported no negative consequences.

If they had the choice, 74.5% would not have had FGC performed in the first place, 15.4% would agree to it, and 10.1% were indifferent. There were 22% who reported that they would have it performed to their daughters, and 5.8% already did.

Participants within sample-2 were asked about their opinion of and attitude toward FGC. There were 10.7% who reported FGC as beneficial, 36.4% as harmful, 24.4% answered that it is situation dependent, and 28.5% did not know. In reply to an open-ended question, situations where FGC was perceived as being of benefit were cases where the external genitalia were "too prominent/ bulging" (18%). More males perceived FGC as beneficial, than did females (14.1% and 3.7% respectively, $P < 0.001$). Whether or not it is nec-

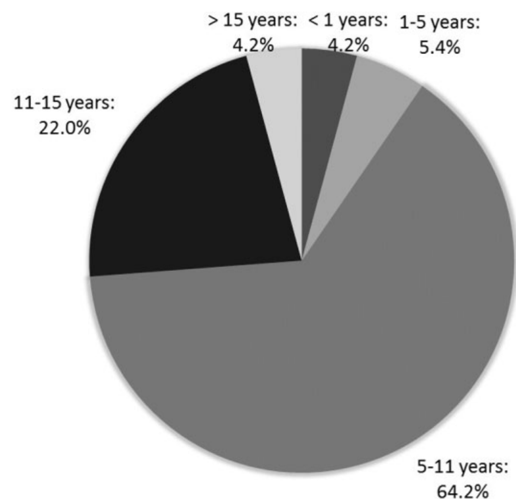

Figure 2 Age of female genital cutting

Table 1 Opinion on FGC by gender and educational level

		Gender			Educational level		Origin	
		Collectively	Males	Females	School education	Higher education	Rural	Urban
Necessity for chastity (%)	Highly necessary	22.5	28.5	10.4	28.8	21.3	32	20.6
	Necessary	21.6	25.5	13.6	21.2	21.7	25.8	20.8
	Unnecessary	55.9	46	76	50	57	42.2	58.6
Benefit in general (%)	Beneficial	10.7	14.1	3.7	10.1	10.8	17.1	9.4
	Harmful	36.4	32.2	45.3	33.9	37	24.3	38.9
	Situational	24.4	25.5	22.2	19.9	25.2	24.9	24.3
	I don't know	28.5	28.2	28.8	36.1	27	33.7	27.4

FGC = female genital cutting

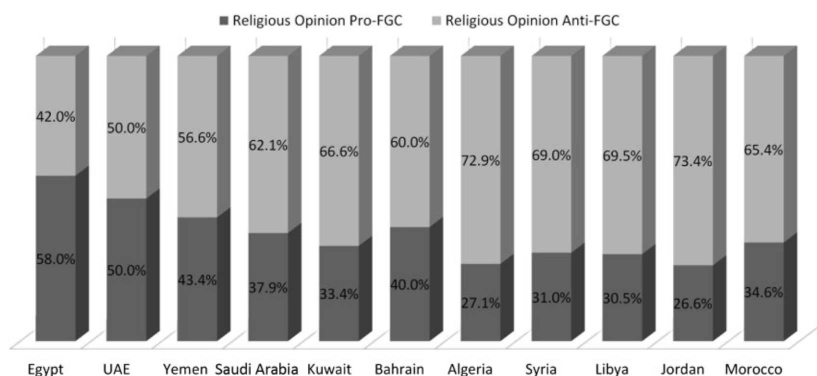

Figure 3 Religious opinion over female genital cutting (FGC) among Muslims by country

essary for female chastity, FGC was reported as highly necessary (22.5%), necessary (21.6%), and unnecessary (55.9%). This opinion was higher among males than it was among females (highly necessary: 28.5% and 10.4%, respectively, $P < 0.001$). Opinion showed no significant difference as per the level of education, whether school education or higher (university or postgraduate) education ($P = 0.13$ for opinion over benefit and 0.45 over chastity). Opinion was more in favor of FGC among those of rural origin compared with urban origin ($P < 0.001$ for both opinion domains) (Table 1).

Religious opinion among Muslims was 55.4% anti-FGC and 44.6% pro-FGC. Only 3.7% of Muslims saw it as a mandate of Islam (Fardh), while 24.6% believed it was prohibited (Haram). The Pro-FGC opinion was most frequent in Egypt (58%) and least in Jordan (26.6%) (Figure 3). Among Christians, 15.5% perceived it as prohibited, 82.7% did not know, and 1.8% viewed FGC as permissible in Christianity. The pilot open-ended question on the justification of FGC reported other rare motives in 1.3%, including protection from disease, preservation of fertility, mental well-being, and cleanliness.

On asking about what exactly participants thought should be removed upon FGC, 3.6% mentioned that the whole of the clitoris should be removed, 37.7% said only part of the clitoris, 14.1% said hood of the clitoris, 5.5% said labia majora, 3.7% said labia minora, 3.5% said all external structures, and 31.9% did not know (Figure 4), with no statistically significant difference between males and females ($P = 0.151$) in this regard.

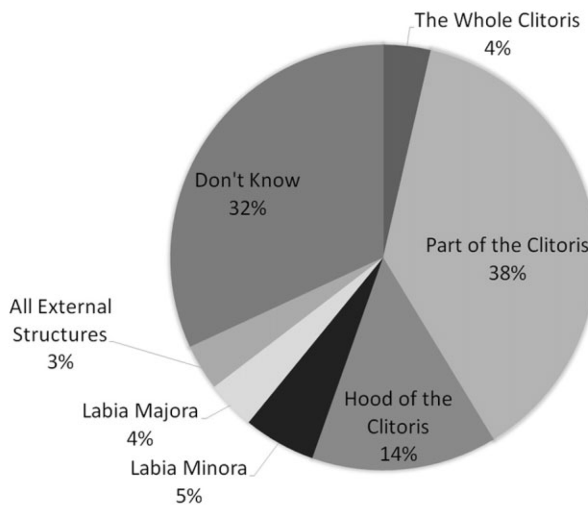

Figure 4 Opinion of the expected extent of female genital cutting

Discussion

According to Egypt's Demographic and Health Survey conducted in 2008, 91% of females 15–49 years old were circumcised [12]. In a study on the prevalence of FGC in Upper (Southern) Egypt, 84.9% of girls at the age of 10–14 years were exposed to FGC in the preceding 6 years [13]. In contrast, another study from Egypt found the prevalence to be much lower (50.3%) [14]. This report of GOSS describes an even lower prevalence rate of 31.6% for FGC, possibly because it relates to the educated who have access to the Internet. Prevalence may be higher and opinion more pro-FGC among the nonliterate. Against this theory—however—is the finding that the level of education (school education vs. higher education) had no appreciable impact on opinion toward FGC.

Prevalence among the better educated, reported herein, relates to the historic trend around the year 1990, considering the average age of participants (29.1 years ± 8.1), and subtracting the average age at which FGC was performed (9.6 ± 3.5). The current and future trend toward FGC can be roughly predicted from the 22% who reported they would have it performed to their daughters, in addition to the 5.8% who already did, adding the possible influence of peer pressure especially from males, who are more in favor of FGC.

The WHO reports that FGC is mostly carried out on young girls sometime between infancy and age 15 [1]. This is confirmed by the current report, and the age range at which FGC is most frequently sustained is narrowed down to 5–11 years.

In the current study, school education and higher education did not seem to deliver an effective message against FGC as revealed by the mild difference in opinion between those with different educational background. Clear messages addressing FGC in a nonrepulsive way should be part of school and higher education. And in order for this to be feasible, the root motive behind FGC should be identified.

We propose that religion may not be the root motive, as evidenced by the mixed individual religious opinion over FGC, the paucity of cases where FGC was perceived as a religious mandate (Fardh), its practice among Christians despite not being mentioned in the Bible, and the wide disparity between Saudi Arabia (a more conservative culture and a religious state) and Egypt (a more liberal culture) as regards FGC rates and Pro-FGC opinion. FGC was not known in some Arab states with a Muslim majority such as Morocco and Palestine, in agreement with previous reports [15]. All this may indicate that the motivation behind FGC is not primarily religious. So what would the root motive behind FGC be?

The results at hand show that more males were in favor of FGC than were females, and that 44.1% of participants believed FGC is necessary/highly necessary for chastity, with far more certainty than the 3.7% who perceived FGC as a religious mandate. So it appears that males' belief in the relation between FGC and chastity may be a potent motive behind FGC, among other important motives. This is in conformity with the WHO report which states that FGC is often motivated by beliefs about what is considered proper sexual behavior, linking procedures to premarital virginity and marital fidelity [1]. Other studies in Egypt and Sudan reported mixed motives: religious rites, tradition, and social pressure [16,17]. FGC has strong roots in many African, Asian, and Middle East countries. The act predates Islam and is practiced by religious and nonreligious groups [18].

There is no direct recommendation for FGC in Islam. The Quran did not mention FGC. FGC was referred to in only one "hadith" (Prophet Mohammad sayings) which is of weak authenticity, telling of Prophet Mohammad passing by a woman circumcising girls in Medinah (to which he had migrated from his origin in Makah shortly before then), and he addresses her saying "Do not cut severely as that is better for a woman and more desirable for a husband" [19]. In this context, FGC is not a teaching of Islam, but is a cultural habit that preceded Islam [18] and was optimized by this Hadith. In that Hadith, FGC was described as "reduction rather than excision." This is the description of "Sunna Circumcision" whereby there is reduction of the hood of the clitoris/prepuce in cases where it is abnormally prominent, homologous with reduction of the prepuce in male circumcision. On the other hand, the Quran states that any act that inflicts harm on believers is prohibited (Al Quran 33:58). In Egypt in 2007, the Grand Mufti (highest official religious authority) issued a "Fatwa" condemning FGM, and the Azhar Supreme Council for Islamic Research (the most highly regarded religious institute) issued a statement explaining that FGM has no basis in the core Islamic Sharia or any of its partial provisions [20]. This is in accord with the WHO fact sheet stating that no religious scripts prescribe the practice [1].

Despite the aforementioned, public religious opinion on FGC in the current report came conflicting and mixed, with no unanimous recommendation or denouncement of FGC, whether among Muslims or Christians. This confirms the WHO statement over the issue where the religious leaders take varying positions with regard to FGC: some promote it, some consider it irrelevant to religion, and others contribute to its elimination [1]. There has to be a clear religious statement that settles the confused and mixed opinion reported herein, to be delivered to the public in schools, religious settings, and through mass media.

WHO classified FGC into four main types according to the extent of cutting: "Type 1: Clitoridectomy," partial or total removal of the clitoris (in very rare cases, only the prepuce [the fold of skin surrounding the clitoris]); "Type 2: Excision," partial or total removal of the clitoris and the labia minora, with or without excision of the labia majora; "Type 3: Infibulation," narrowing of the vaginal opening through the creation of a covering seal (the seal is formed by cutting and repositioning of the inner, or outer, labia, with or without removal of the clitoris); and "Type 4: Other," all other harmful procedures to the female genitalia for nonmedical purposes, e.g., pricking, piercing, incising, scraping, and cauterizing the genital area [1].

In the current survey, participants were asked about the parts that are supposed to be removed upon FGC. Only 14.1% described the Sunna circumcision—the relatively least invasive, religion-motivated type where only the hood of the clitoris is reduced, and 31.9% did not know. Otherwise, the majority advocated excision of clitoris or labia (Types 1 and 2), and only 3.5% advocated total excision of all external structures (Type 3). This is in accordance with previous studies reporting that the most commonly performed types of FGC in Egypt are Types 1 and 2 [21], and that Type 3 (infibulation) is least prevalent in Egypt, and relatively rare and mostly restricted to Sudan (74%) [22].

Despite the probability of reporting bias due to surveying Internet users rather than the general population, it is still alarming that the majority of cases of FGC have been performed in the hands of doctors. Traditionally, FGC used to be performed in the hands of barbers "Hallaak" or traditional midwives/birth attendants "Daya," both of whom have neither formal medical training nor adopt formal infection control measures, thereby leading to a higher probability of complications and bacterial/viral infections including viral hepatitis which is highly prevalent in Egypt. The shift from the barber and midwife to the doctor was probably motivated by a desire for more safety on the part of the parents, and for having FGC performed under anesthesia (62.9%), to spare the child the unforgettable pain. This—however—is no justification for doctors agreeing to perform FGC. The involvement of physicians in performing FGC may give a false sense of security to parents, thereby encouraging FGC even further. On the other hand, and from a positive point of view, this shift toward medical personnel for FGC is an opportunity that can be exploited to educate parents against FGC. If this education is to succeed in deflecting parents from FGC, it has to address the religious background, the worthlessness of FGC in promoting chastity, as well as the sexual and medical consequences. The development of and training on a preset education program are advised.

Nurses performing FGC cannot be justified both on the scale of unacceptability of FGC and unacceptability of nurses performing a surgical intervention. Authorities in the Middle East and particularly in Egypt should be informed of such a situation in order to take preventive measures and exert strict control over medical and paramedical practices in this regard, else another shift will occur from doctors toward nurses, like it happened from barbers and midwives to doctors. Instead, with the proper training, nurses may be a key player in delivering the anti-FGC message, especially maternity, obstetric, and pediatric nurses who will come into contact with most families around the point in time when FGC is usually considered.

Worth mentioning is that laws have been set forth, criminalizing FGC in some parts of the Middle East. In June of 2008, the Egyptian Parliament agreed to criminalize FGC in the Penal Code, establishing a minimum custodial sentence of 3 months and a maximum of 2 years, or an alternative minimum penalty of 1,000 Egyptian pounds (LE) and a maximum of 5,000 LE [20]. The Egyptian Ministry of Health issued in 2007 a ministerial decree (271) closing a loophole in the previous 1996 decree by banning everyone, including health professionals, from performing FGC in governmental or nongovernmental hospitals and clinics [20]. Medical and paramedical personnel performing FGC against the law emphasizes the relatively lower effectiveness of legal measures in the face of overwhelming cultural and/or religious beliefs, indicating the need for addressing the root motivation driving those

beliefs as a primary preventive measure, in addition to more strict control over medical practice, and setting more effective legal consequences for performing FGC.

Conclusion

In the Middle East, the trend toward performing FGC among the better-educated continues into the current decade, indicating insufficient effectiveness of the measures taken to eradicate it. An important motivation driving FGC seems to be males seeking female chastity, rather than religion, not to undermine the importance of other factors. This should be considered when formulating an anti-FGC message. It should be realized that school and university education were void of an effective anti-FGC message, which should be addressed.

It should also be realized that there is a shift toward doctors and nurses for performing FGC, which is both a threat and an opportunity. We propose that the primary message against FGC should be delivered by medical and paramedical personnel who can deliver a balanced and confidential message including the aspects of chastity, religion, and health/sexual hazards, contrary to mass media which are limited in reach by the conservative nature of Middle Eastern culture, where discussing FGC in public can be repulsive. In addition to training for delivery of the anti-FGC message, strict control over medical and paramedical personnel is required to prevent them from performing FGC.

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