Global Journal of Health Education and Promotion
Vol. 17, No. 2, pp. 42–57
http://dx.doi.org/10.18666/GJHEP-2016-V17-I2-7101

Female Genital Mutilation: Current Practices and Perceptions in Somaliland

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Abstract

Background: Somaliland, Africa, has the highest prevalence of female genital mutilation (FGM) in the world despite its recognition as a human rights violation and decades of campaigns to eliminate it. This study establishes baseline data for FGM prevalence in Somaliland and explores changing perceptions of FGM among Somalis. **Method:** A descriptive study was conducted among 6,108 women at the Edna Adan University Hospital (EAUH) from 2006–2013. Data were obtained regarding FGM status and knowledge and perception toward the practice. Chi-square analysis was conducted to compare current and previous studies conducted at EAUH. **Results:** The prevalence rate of FGM among respondents was 98.4% and procedures occurred at an average age of 8.47 years. Most participants (82.20%) underwent the most severe Type III or Pharaonic FGM. The most commonly cited reason for practicing FGM was to maintain cultural and traditional values (82.9%). Continuation of the practice was supported among 83.17% of respondents, the majority of whom reported a preference for the milder Type I or II Sunna FGM (95.15%). Women who attended university were subjected to FGM less than were their uneducated counterparts. Younger women reported a higher prevalence of the milder Sunna FGM. Comparison of the current and previous studies reveals a shift toward the less invasive Sunna FGM ($\chi^2 = 16.81$, $p = 0.0$). **Conclusions:** Prevalence of

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Acknowledgments. Special thanks to Edna Adan Ismail for making this study possible by providing access to the data set obtained at Edna Adan University Hospital, to Tom Kraemer for his efforts in compiling the data, and to the EAUH staff and study participants.

FGM remains high in Somaliland, suggesting that advocacy to abandon the act has been unsuccessful. Pharaonic FGM currently predominates; however, comparison with previous baseline data indicates a trend toward the milder Sunna FGM.

Keywords

Somaliland; Africa; female genital mutilation; Sunna FGM; Pharaonic FGM; trends; prevalence

Female genital mutilation (FGM), also referred to as female genital cutting (FGC) and female circumcision (FC), includes all procedures involving partial or total removal of the external female genitalia for nontherapeutic reasons (World Health Organization [WHO], 1997). Despite its recognition as an international human rights violation of girls and women, FGM continues unabated. Estimates from the United Nations Children's Fund (UNICEF, 2013) suggest that FGM has been performed on over 125 million girls and women throughout Africa and the Middle East where the practice is most prevalent. The practice is common in the majority of African countries and is concentrated in a belt of countries in northern Africa extending from Gambia to Somalia (UNICEF, 2013).

The WHO (1995) classifies FGM into four categories based on the invasiveness of the operation. Procedures that involve partial or complete removal of the clitoris are classified as Type I procedures. Operations classified as Type II involve partial or total removal of the clitoris and labia minora. Type III procedures are often referred to as infibulation and involve partial or complete removal of the external genitalia and suturing or narrowing of the vaginal opening. The last type, Type IV, is much less common and includes all other harmful procedures to female genitalia and may include pricking, piercing, stretching, incising, or scraping of the clitoris. In addition to this formal classification, FGM procedures are commonly described as Sunna or Pharaonic FGM in many Middle Eastern and African countries. Sunna FGM refers the less invasive Type I and Type II FGM procedures as denoted by the WHO and the more invasive Type III procedures are referred to as Pharaonic FGM.

Statement of Purpose

This study seeks to examine the prevalence of FGM among women in Somaliland, Africa, from 2006–2013 and to outline the details surrounding the FGM procedures performed. Additional investigation to explore the attitudes and perceptions among Somali women toward the continuation of FGM is also an objective. This study further seeks to compare the results of this study with

that of a previous study that was conducted at Edna Adan University Hospital (EAUH) from 2002 to 2006. This analysis would also assist in identifying long-term trends regarding FGM in Somaliland and help to assess whether the strategies that have been implemented to eradicate the practice have affected the occurrence of the practice.

Literature Review

The Republic of Somaliland, situated in the Horn of Africa, is a small democracy bordering Djibouti, Ethiopia, and Somalia. Formerly known as the Somaliland Protectorate under British rule, it unilaterally declared its independence in 1991 after years of civil war (Walls, 2009). Prior to the collapse of the Somali government in 1991, efforts to eliminate FGM were underway; however, decades of civil war ended the academic research being conducted on FGM and the campaigns geared toward eradicating the practice. The practice continues in epidemic proportions, and although data reporting the prevalence of FGM in Somaliland are scarce, a recent cross-sectional study reported an FGM prevalence rate of 97% among the subjects (Gele, Bø, & Sundby, 2013b). Similar findings were previously reported in neighboring Somalia, with 98% of women aged 15–49 years having been subjected to the act (UNICEF, 2013). These findings mirror prevalence rates from studies conducted decades ago, with 98% of Somalis having reportedly undergone FGM in 1993 (World Bank & United Nations Population Fund [UNFPA], 2004). As such, efforts to eradicate FGM have had little to no progress in over 20 years.

Traditionally, girls in Somalia were subjected to the procedure as a rite of passage as they transitioned from adolescence to adulthood (World Bank & UNFPA, 2004). Although FGM is no longer considered a rite of passage, the custom continues to be passed down from generation to generation and is still widely practiced. There is some variation in the age at which the procedure is performed, but it is typically performed between the ages of 4 and 8 years in Somalia (Al-Dhayi, 2013). In the only study of its kind to date in Somaliland, a survey of women attending the Prenatal Clinic at EAUH revealed similar findings, with the average age at which the subjects underwent FGM being 8 years, with 7 years of age being the most commonly reported (Ismail, 2009).

Practitioners performing this tradition are typically, but not always, traditional circumcisers or traditional birth attendants (Ford, 2001; World Bank & UNFPA, 2004). The results of a survey conducted in Somaliland reported that 84% of the FGM procedures were performed by elderly women and traditional birth attendants (Ismail, 2009). These untrained medical personnel perform the procedures with no anesthesia in unsterile conditions (Nour, 2008). Moreover, the ability of traditional circumcisers to "circumcise" girls is considered a skill and is their employment. Mitike and Deressa (2009) found that the majority (77%) of traditional circumcisers who have no formal training perform FGM

primarily to generate an income. Those performing FGM procedures are not limited to untrained medical personnel; however, the number of trained medical personnel performing the procedure is increasing (World Bank & UNFPA, 2004).

Because clitoral tissue is rich in vascular and nervous tissue, removal of the tissue is dangerous and can lead to complications (Toubia, 1994). Removal of clitoral tissue for Sunna procedures and additional genital tissue for Pharaonic procedures causes excruciating pain, resulting in complications such as hemorrhage, trauma to nearby structures, and failure to heal (Shell-Duncan, 2001; Toubia, 1994). Unsterile knives and razors that have been used on multiple females are often the instrument of choice for practitioners (Kun, 1997). The situation is further complicated when local mixtures including oil, honey, dough, and tree sap are subsequently used to suppress the bleeding (Nour, 2008). One complication resulting from such a lack of sterile conditions is infection, the likelihood of which is directly correlated with the degree to which unsanitary tools and techniques are used in the procedure. Research conducted in Gambia also indicates that women subjected to FGM are at greater risk for acquiring sexually transmitted diseases, including herpes, simplex virus 2, and HIV (Morison et al., 2001; Utz-Billing & Kentenich, 2008).

Additional long-term complications are likely with the more invasive infibulation or Pharaonic FGM procedures. Because the Pharaonic procedure entails cutting away a substantial amount of genital tissue and allowing only a small hole for urine and menstrual blood to flow through, it is recommended that women undergo deinfibulation to open the scar (Toubia, 1994). This release of the anterior vulvar tissue allows urine and menstrual blood to flow freely, makes intercourse less painful, and eliminates the threat of obstructed labor. Failure to do so can result in complications, including dysmenorrhea, infertility, abscess formation, and chronic pelvic infections (American Academy of Pediatrics, Committee on Bioethics, 2010; Royal College of Obstetricians and Gynaecologists, 2009; Toubia, 1994). Women are also at additional risk for obstetric complications, including prolonged delivery, postpartum blood loss, and perineal tears (Larsen & Okonofua, 2002; Utz-Billing & Kentenich, 2008). In addition, infants born to circumcised women have a greater chance of requiring resuscitation or experiencing perinatal death or stillbirth (Larsen & Okonofua, 2002; Utz-Billing & Kentenich, 2008). Some women may suffer mental health consequences that are often overlooked. The practice may lead to a variety of psychological symptoms, including inferiority, depression, psychosis, and neurosis (Utz-Billing & Kentenich, 2008).

Investigation into why this antiquated act persists indicates that motives for its continuation include tradition and religion (Almroth et al., 2001; Gele, Bø, & Sundby, 2013a). Qualitative in-depth interviews of Somalis regarding their understanding of the act revealed that a primary reason for mutilation

was simply to "make the girl like her mother and grandmother" and further indicated that ritual was done "out of love" and was a practice passed from generation to generation that was never questioned (Schultz & Lien, 2013). Religious requirements have also been cited in support of continuing the act. A descriptive study conducted at a maternity clinic in Hargeisa, Somaliland, revealed that continuation of the practice was necessary, citing that FGM is required according to religious law (Fried, Warsame, Berggren, Isman, & Johansson, 2013). Similarly, a cross-sectional study of Somali men and women conducted by Gele et al. (2013b) revealed that 96% of the participants supported continuation of FGM based on the notion that it is a religious requirement. The men and women contended that Sunna FGM is not harmful and is a religious obligation (Gele et al., 2013b). However, there is no scriptural basis that suggests FGM is an Islamic requirement (Jones, Ehiri, & Anyawu, 2004).

Families are further compelled to mutilate their girls because failure to comply with the ritual can result in social sanctions and pressures because young girls who do not undergo FGM are perceived to be "unclean" (Fried et al., 2013; Schultz & Lien, 2013). The unmutilated female genitals are considered "dirty," and Somali girls who have not undergone FGM are prohibited from handling food in the kitchen or serving tea because the food is considered tainted (Schultz & Lien, 2013). Recent studies of Somali women also found that uncircumcised girls are bullied and called names, which implies that uncut girls are not virgins (Fried et al., 2013). Uncut Somali girls are also taught that remaining uncut will cause them to engage in abnormal social conduct through sexual activity (Schultz & Lien, 2013). In the long term, lack of circumcision can result in reduced marriageability and bring dishonor to a family (Fried et al., 2013; Schultz & Lien, 2013). Along these lines, the ideals held by Somali men also encourage continuation of the practice because circumcision is often a prerequisite for marriage. In fact, a cross-sectional analysis conducted in Hargeisa, Somaliland, of 215 randomly selected people found that 96% of men (n = 108) preferred to marry circumcised women as opposed to uncircumcised women (Gele et al., 2013b).

Despite that FGM is a flagrant form of violence toward women and has numerous ill health effects, there is staunch opposition toward total abandonment of the practice. After nearly 40 years of advocacy, there has been no decline in the prevalence of FGM and "zero-tolerance policies" have closed the door to discussion on abandonment of FGM and are more likely to cause dissension between the public and government than they are to establish order (The Public Policy Advisory Network on Female Genital Surgeries in Africa, 2012). Progress toward total abandonment has been further impeded because some advocacy has discouraged Pharaonic FGM but encouraged Sunna FGM (Gele et al., 2013a). One of the most compelling factors for continuation of the practice is the belief that it is required by the Koran (Gele et al., 2013b).

Furthermore, uncooperative religious leaders pose another obstacle because they are sympathetic to Sunna FGM and will not openly denounce the act and resolve confusion surrounding whether FGM is an Islamic requirement (Gele et al., 2013a). This has resulted in a trend toward increased prevalence of Sunna FGM, which has been reported in several studies (Mitike & Deressa, 2009). In a cross-sectional study, Mitike and Deressa (2009) found the less severe Sunna FGM to be nearly twice as prevalent as the more severe Pharaonic FGM among Somali refugees in eastern Ethiopia. Qualitative studies including in-depth interviews with Somali men and women in Hargeisa, Somaliland, revealed a similar trend of increased support of Sunna FGM (Gele et al., 2013a).

Method

Data Source

The study was designed to be a descriptive study of FGM among pregnant women who were seeking care at the EAUH from August 2006 to July 2013. The mutilation status of women presenting to EAUH was determined, and the mutilated women were asked to complete an oral survey that included limited demographic information; details concerning the nature of their FGM procedure; and information regarding their knowledge, opinions, and attitudes toward FGM. In addition to investigating current prevalence and perceptions of FGM in Somaliland, this study was intended as a follow-up to a similar study conducted at EAUH from prior to 2006. The same protocol was followed in both studies. The results were compared to determine whether the prevalence and perceptions of FGM in Somaliland were affected by awareness campaigns about the health risks associated with FGM procedures.

Data Analysis

The obtained data were manually collated and entered into Microsoft Excel, and all statistical analyses were performed using IBM SPSS for Windows (Version 21). Frequencies were generated for the subject's age, level of education, and various factors associated with the subject's FGM procedure including the age at which it took place, the type of mutilation performed, the location at which it took place, the people performing the procedure, and the reason for conducting the FGM procedure. Additional frequencies were also calculated regarding whether the subjects would elect to have FGM performed on their daughters and, if so, the type of FGM the mother would have performed on her daughter. A comparison to observe trends among several of the variables was conducted in Microsoft Excel using graphs.

Because this was a follow-up study to a previous study conducted at EAUH in 2009 in which the same protocol was followed for data collection, chi-square analyses were used to compare the populations with regard to the type of FGM

performed, the educational level of the subjects, and the attitudes and perceptions of the respondents toward continuation of FGM. For all statistical analyses, p values of < 0.5 were considered statistically significant.

Results

The data consisted of 6,174 women who visited the Prenatal Clinic at EAUH in Hargeisa, Somaliland, from August 2006 to July 2013. The data pertain to the practice of FC or FGM and include individual demographic information as well as information on whether the patient has undergone FGM herself and whether she intends to have FGM performed on her daughter.

Of the 6,174 women invited for study, 98.9% (n = 6,108) participated. The mean age of the participants was 26.37 ± 5.62 years with a range of 12–50 years. The majority of the participants (n = 4,468, 72.38%) were between the ages of 20 and 30 years. Additional demographic information revealed that approximately half of the participants (53.2%) had no education. Primary, intermediate, and secondary levels of education were reported by 19.1%, 4.7%, and 13.6% of the participants, respectively. A smaller number of respondents reported having an education in Islamic studies (2.0%) or a university education (7.4%).

Among the 6,108 participants, 98.4% (n = 6011) reported having undergone FGM. Over three quarters of the respondents (77.77%) underwent FGM between the ages of 7 and 10 years. The average age at which FGM was performed on the women was 8.47 ± 1.93 years, with 7 years being the most frequently reported. Among those who reported having undergone FGM, the majority (82.20%) underwent the most severe or Pharaonic FGM in which part or all of the external genitalia was removed and the vulva was reapproximated and stitched together. This meets the standard of Type III FGM as classified by the WHO (2008).

Factors associated with having undergone FGM and the type of FGM experienced included level of education and age. Bivariate analyses of the level of education and whether participants had been mutilated revealed a trend toward women having higher levels of education being less subjected to FGM. Women who attended university were subjected to FGM less than their uneducated counterparts. Additionally, the type of FGM performed appears to be associated with age, with bivariate analyses of the respondent's age and the type of FGM undergone revealing a trend for a higher prevalence of the less severe Sunna FGM among younger women (Figure 1). Sunna FGM meets the standard of Type II FGM as defined by the WHO (2008).

The majority of respondents (n = 4,454, 72.14%) reported having undergone FGM in Somaliland. Other highly represented countries included Ethiopia (10%) and Somalia (7%). No statistically significant differences were observed among the mean age at which FGM was performed across the reported countries. Within the reported countries, the majority of the participants in-

dicated that the FGM took place in an urban area (80.49%), not in rural areas. Further analysis to determine the prevalence of Pharaonic and Sunna FGM within these countries revealed that Pharaonic FGM is the most prevalent in all three countries; however, more respondents from Somalia (30%) reported having the less severe Sunna FGM than did participants whose procedures took place in Somaliland (15%) or Ethiopia (16%).

The most cited reason for undergoing the FGM procedure was maintenance of traditional and cultural values (82.9%; Table 1). Another 14.9% were unable to answer why they underwent the FGM procedure or reported that they did not know why they were mutilated. The majority of mutilated participants revealed that the procedures were performed by traditional birth attendants (60.6%) and old women (31.5%; Table 1). An additional 3.8% (n = 219) of the procedures were performed by trained medical personnel including physicians, nurses, and other personnel or occurred in hospitals. Further analysis to identify countries in which a higher frequency of procedures was performed by trained medical personnel revealed that respondents from Kenya (n = 15), Saudi Arabia (n = 27), Somalia (n = 447), and the United Arab Emirates (n = 35) were more likely to have undergone FGM at the hands of trained personnel (Table 1). In contrast, respondents having undergone FGM in Somaliland (n = 4,454) were the least likely to have had the procedure performed by trained personnel.

Table 1
Details Surrounding FGM Procedures

a. Reason for FGM Procedure[a]

Reason	**Frequency**	**%**
Culture/Tradition	4790	82.9
Unknown/Don't Know	861	14.9
Religion	127	2.2
Total	**5778**	**100**

b. Persons Performing FGM Procedure[b]

Person performing	**Frequency**	**%**
Home/Mother	125	2.2
Man	10	0.2
Midwife	51	0.9
Old Women/Grandmother	1812	31.5
TBA	3486	60.6
Trained Medical Personnel (physician, nurse, hospital)	219	3.8
Woman	50	0.9
Total	**5753**	**100**

Table 1 (cont.)

c. Location and Frequency of Cases in Which Trained Medical Personnel Performed FGM Procedures[c]

Country	Number of cases performed by trained medical personnel	Number	%
Somaliland	74	4454	2
Ethiopia	23	589	4
Djibouti	5	95	5
Qatar	1	7	14
Somalia	75	447	17
Sudan	2	11	18
Saudi Arabia	9	27	33
United Arab Emirates	14	35	40
Syria	1	2	50
Kenya	8	15	53
Tanzania	1	1	100

[a]Totals do not reflect individuals with no response (n=396). [b]Totals do not reflect individuals with no response (n=420) or who responded "unknown" (n=1). [c]Totals do not reflect individuals who responded "unknown" (n=6).

The survey also assessed attitudes and perceptions toward the continuation of FGM when asked if they would have FGM performed on their daughter. The majority of women (83.17%) favored continuation of the practice, indicating that they would have FGM performed on their daughter. However, the majority of these respondents (95.15%) reported that they would prefer that the less severe Sunna procedure be performed on their daughter. The type of FGM the mother had undergone did not influence the proposed type for her daughter, with the majority of mothers having undergone Pharaonic (94.5%) and Sunna (98.20%) mutilation opting for the less severe Sunna mutilation for their daughters. Among respondents reporting that they would have FGM performed on their daughter (n = 4,588), the most commonly cited reasons for continuation of the practice pertained to maintaining cultural (40.0%), traditional (31.0%), and religious (26.5%) values. Those reporting that they would not have FGM done on their daughter also cited that they would avoid doing

so for religious reasons (33.8%) or stated that the practice was "not good" for women (16.7%) or was "a big problem" (22.5%). Additional analysis revealed that mothers possessing greater levels of education were less likely to respond yes to continuation of the practice (Figure 2).

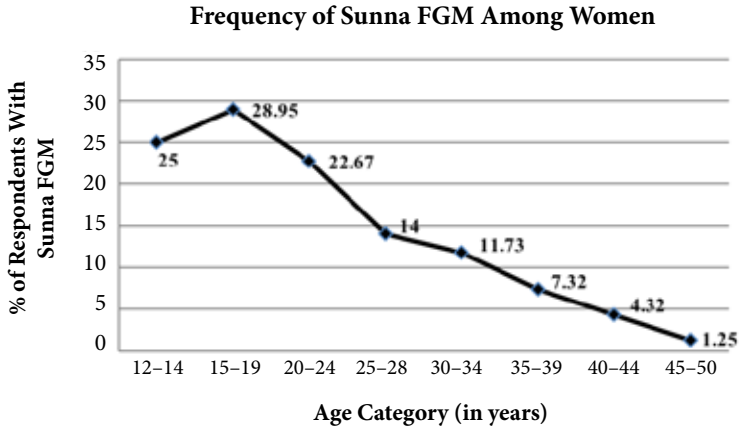

Figure 1. Frequency of Sunna FGM among women.

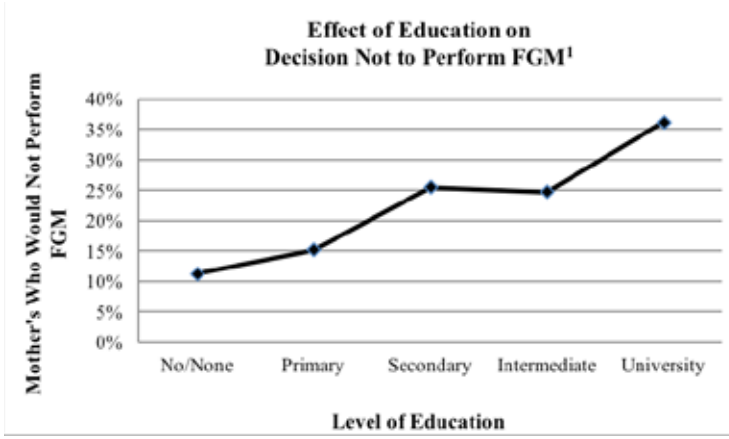

Figure 2. Relationship among education and attitude toward FGM continuation. [1]Results for primary education reflect responses from respondents reporting primary education (n = 166) and Islamic studies (n = 1), which is considered to be at the primary level of education in Somaliland.

Previous Study

The current study is a follow-up to a study previously published by the EAUH in 2009 in which 4,500 women from 2002 to 2006 were invited for study, and 88.18% (n = 3,968) participated. Comparison of the two populations indicates significant differences in education, with participants in the current study being more highly educated ($\chi^2 = 6.82$, $p = .009$). Additional comparison of the studies revealed a highly significant difference in the most commonly performed type of FGM, with a mere 1% of respondents in the previous study reporting having undergone the less severe Sunna FGM compared to the current study in which 18% of the respondents underwent Sunna FGM, thus indicating a shift toward Sunna FGM ($\chi^2 = 16.81$, $p = 0.0$). Further analysis of the mothers' attitudes and perceptions toward having FGM performed on their daughters was also highly significant. In the former study, 38% of the respondents indicated that they would not have their daughter mutilated compared to the current study in which only 17% indicated they would not have this done ($\chi^2 = 11.06$, $p = .001$). However, although the likelihood of mothers subjecting their daughters to mutilation has increased, the type of FGM preferred for daughters remains consistent. In both the previous (94%) and current (95%) studies, mothers indicated that they would subject their daughters to the less severe Sunna FGM ($\chi^2 = .096$, $p = .756$).

Discussion

The results of this study reveal that FGM is deeply entrenched in Somali culture and continues to be widely practiced in Somaliland. The average age at which the procedure occurred was 8.47 years of age and the majority of the subjects (77.8%) underwent FGM between 7 and 10 years of age. The prevalence of FGM in this study (98.4%) is consistent with that of two previous studies conducted in Somaliland, both of which reported the prevalence of FGM to be 97% among participants (Gele et al., 2013a; Ismail, 2009). Moreover, the present findings are consistent with studies conducted in the 1980s and 1990s, which reported the prevalence of FGM among Somalis to be 99% and 100% among the participants, respectively, thus indicating that efforts to curtail and eradicate the act have been largely unsuccessful (Ismail, 2009; World Bank & UNFPA, 2004).

Factors associated with having undergone FGM and the type of FGM experienced include level of education and age. Younger Somali girls who are more educated tend to object to the act more than their elders do (Gulaid, 2008). This study confirms this notion, with women who attended university being less likely to have been mutilated. Moreover, younger women were also more likely to undergo the less severe Sunna FGM compared to their older counterparts. Consistent with this study, a cross-sectional study of Somali refugees in eastern Ethiopia found that Sunna FGM was more likely to be performed on

younger girls, with the rate of Sunna FGM performed on the younger and older girls being 80% and 59.8%, respectively (Mitike & Deressa, 2009).

Statistical analysis further indicates that the majority of the subjects underwent the most severe form of FGM, Pharaonic FGM (82.4%), which has been the most prevalent form of FGM in Somaliland for decades. Similar results were reported in a former study conducted at EAUH in which the majority of the participants (99%) reportedly underwent the more severe Pharaonic FGM (Ismail, 2009). Comparison of the former study with the results of this study thus reveals a shift away from the more invasive Pharaonic FGM—with this representing a 23% decrease in the performance of Pharaonic FGM and a concomitant 15% increase in the performance of Sunna FGM. This is consistent with the literature, with quantitative and qualitative studies recently conducted in Somaliland revealing a shift from Pharaonic FGM to Sunna FGM (Fried et al., 2013; Gele et al., 2013b). This trend is likely in part due to religious leaders and information provided through media (Fried et al., 2013). In a qualitative study, Fried et al. (2013) reported that the trend may in part be due to religious influence, with the study revealing that participants began to oppose Pharaonic FGM when they became aware that infibulation was prohibited by Islamic law, but that the milder Sunna FGM was required according to the Koran. Additionally, advocacy efforts initiated in Somaliland that encourage Sunna FGM were also cited as a reason for abandonment of the more invasive Pharaonic FGM.

Analysis of the data further revealed that cultural requirements (33.5%) and maintaining tradition (49.4%) were the most commonly cited reasons for FGM practice among the subjects. However, the degree to which culture and tradition overlap in Somali culture is unknown. Another contingent of the study population (14.9%) indicated having undergone the procedure for reasons unknown to them. Results of the former study conducted at EAUH indicated that the majority of participants (55%) did not know why they underwent the procedure (Ismail, 2009). This is likely due to FGM being so ingrained into Somali culture that girls undergo the procedure "to be like mom" and never question the act or are never educated on what is about to happen. Treating this act is a normalized part of upbringing for Somali girls and thus neglecting to inform and educate them on FGM results in a lack of knowledge of female anatomy and properly functioning female genital organs. Such lack of knowledge and ignorance leads to embarrassment and shame that inhibits girls from seeking appropriate medical attention in the future (Fried et al., 2013).

The majority of the procedures were conducted by old women (31.5%) and traditional birth attendants (60.6%), which is consistent with the previous EAUH study in which the majority of the procedures were performed by old women (84%; Ismail, 2009). Trained medical personnel were responsible for 3.8% and 4.3% of the procedures in the current and former study, respec-

tively (Ismail, 2009). It may seem alarming that any trained medical personnel would be involved in a harmful act that has no therapeutic benefit, but the number of trained medical personnel mutilating women may actually rise in the future. This is due to Somalis beginning to abandon traditional circumcisers in favor of having trained medical personnel perform the procedure in private and public clinics because of growing concerns of HIV/AIDS transmission (Gulaid, 2008).

In this study, a large contingent of the women (83.17%) favored continuation of the practice, indicating that they would have the act performed on their daughter. The majority of those in favor of continuing the act indicated that they would prefer the less invasive Sunna FGM be performed on their daughter. Qualitative findings of a study conducted in Somaliland are consistent with those of the present study, with nearly all the participants supporting continuation of FGM, but opting for the milder Sunna form (Gele et al., 2013a). Another study conducted in Somaliland in the city of Burao found a high level of interest in abandoning Pharaonic FGM among interviewees who preferred Sunna FGM (Gulaid, 2008). Commonly cited reasons supporting continuation of the act included maintaining cultural, traditional, and religious values. Interesting enough, those opposing continuation of FGM most often cited religious reasons for not wanting to subject their daughters to the act. This underscores that there is some confusion concerning whether FGM is required according to Islamic law.

Limitations of the Study

Although the study provided useful baseline date, it has several limitations. Because the data were collected in a hospital, the results may not be representative of Somaliland as a whole because values and preferences differ among urban and rural dwellers in Somaliland. Therefore, because EAUH is in the urban town of Hargeisa, the results are skewed to suggest that FGM occurs in urban areas more than in rural areas. However, this merely reflects that the majority of the people surveyed were urban dwellers. Moreover, this also has the potential to skew the results of the preferred type of FGM (i.e., Pharaonic or Sunna) because people living in town often prefer the milder Sunna FGM (Gulaid, 2008). As such, the frequency of the preferred type of FGM may be skewed toward Sunna FGM.

Additionally, there was a coding error when the data were manually entered into Microsoft Excel. In the survey, women were asked whether they would have FGM performed on their daughters. A follow-up question then asked which type of FGM the individual would then have performed on their daughters. Some women responded that they would *not* have FGM performed on their daughters, but then indicated which type of FGM that they would have performed (i.e., Pharaonic or Sunna) on their daughters in the subsequent

survey question, and this was coded as having indicated that they *would* have FGM performed on their daughters. This error slightly increased the frequency of women indicating that they would have FGM performed on their daughters. However, given the large size of the sample (n = 6,108) and the small number of miscoded responses, this coding error had a minor effect (less than 1%) on the frequency of mothers indicating that they would have their daughters circumcised.

Public Health Implications and Recommendations

FGM still continues in epidemic proportions in Somaliland despite decades of efforts to eradicate the act. The pervasive resistance toward eradicating FGM in Somaliland will likely require an approach that encourages harm reduction but does so in a way that systematically eliminates obstacles and resistance toward total abandonment, which has not been possible to date. Because public support for Pharaonic FGM is waning with Somalis vehemently supporting Sunna FGM, it is apparent that abandonment of the practice is not directly attainable. As such, harm reduction strategies may be a means of facilitating the health of Somali women in the interim until total abandonment is achievable. Education on the negative health consequences of Pharaonic FGM, in conjunction with clarification of Islamic law, which does not require FGM, may go a long way toward steering Somali women and children to improved health. Involvement of religious leaders is a necessity as well because much religious misperception and the notion that Sunna FGM is mandated by the Koran are major obstacles and are compelling many Somalis to continue the act. A joint effort advocating for women's and children's health from local leaders, religious leaders, and international platforms is the only means by which FGM will be eliminated. Rendering the act a crime has had no success and will only bolster support of this harmful act that is entrenched in this culture, just as it has done in neighboring Somalia.

References

Al-Dhayi, B. (2013). Towards abandoning female genital mutilation/cutting in Somalia for once, and for all. Retrieved from http://www.unicef.org/protection/somalia_68110.html

Almroth, L., Almroth-Berggren, V., Hassanein, O. M., El Hadi, N., Al-Said, S. S., Hasan, S. S., . . . Bergström, S. (2001). A community based study on the change of practice of female genital mutilation in a Sudanese village. *International Journal of Gynecology and Obstetrics*, *74,* 179–185.

American Academy of Pediatrics, Committee on Bioethics. (2010). Ritual genital cutting of female minors. Pediatrics, 125, 1088–1093.

Ford, N. (2001). Tackling female genital mutilation in Somalia. *The Lancet, 358*, 1179.

Fried, S., Warsame, A. M., Berggren, V., Isman, E., & Johansson, A. (2013). Outpatients' perspectives on problems and needs releated to female genital mutilation/cutting: A qualitative study from Somaliland. *Obstetrics and Gynecology International, 2013*. http://dx.doi.org/10.1155/2013/165893

Gele, A. A., Bø, B. P., & Sundby, J. (2013a). Attitudes toward female circumcision among men and women in two districts in Somalia: Is is time to rethink our eradication strategy in Somalia? *Obstetrics and Gynecology International, 2013*. http://dx.doi.org/10.1155/2013/312734

Gele, A. A., Bø, B. P., & Sundby, J. (2013b). Have we made progress in Somalia after 30 years of interventions? Attitudes toward female circumcision among people in the Hargeisa district. *BMC Research Notes, 6*(122), 1–9.

Gulaid, U. J. (2008). The challenge of female genital mutilation in Somaliland. *Finnish Journal of Enhnicity and Migration, 3*(2), 90–91.

Ismail, E. A. (2009). *Female genital mutilation survey in Somaliland.* Retrieved from Edna Adan University Hospital website: http://www.ednahospital.org/female-genital-mutilation.pdf

Jones, S. D., Ehiri, J., & Anyawu, E. (2004). Female genital mutilation in developing countries: An agenda for public health response. *European Journal of Obstetrics & Gynecology and Reproductive Biology, 116,* 144–151.

Kun, K. E. (1997). Female genital mutilation: The potential for increased risk of HIV infection. *International Journal of Gynecology and Obstetrics*, *59,* 153–155.

Larsen, U., & Okonofua, F. E. (2002). Female circumcision and obstetric complications. *International Journal of Gynecology & Obstetrics, 77,* 255–265.

Mitike, G., & Deressa, W. (2009). Prevalence and associated factors of female genital mutilation among Somali refugees in eastern Ethiopia: A cross-sectional study. *BMC Public Health, 9.* http://dx.doi.org/10.1186/1471-2458-9-264

Morison, L., Scherf, C., Ekpo, G., Paine, K., West, B., Coleman, R., & Walraven, G. (2001). The long-term reproductive consquences of female genital cutting in rural Gambia: A community-based survey. *Tropical Medicine and International Health, 6,* 643–653.

Nour, N. M. (2008). Female genital cutting: A persisting practice. *Women's Health in the Developing World, 1*(3), 135–139.

The Public Policy Advisory Network on Female Genital Surgeries in Africa. (2012). Seven things to know about female genital surgeries in Africa. *Hastings Center Report, 42,* 19–27.

Royal College of Obstetricians and Gynaecologists. (2009). Female genital mutilation and its management. *Green-top Guideline, 53*(1), 1–17.

Schultz, J., & Lien, I. (2013). Meaning-making of female genital cutting: Children's perception and acquired knowledge of the ritual. *International Journal of Women's Health, 5*, 165–175.

Shell-Duncan, B. (2001). The medicalization of female "circumcision": Harm reduction or promotion of a dangerous practice? *Social Science & Medicine*, *52,* 1013–1028.

Toubia, N. (1994). Female circumcision as a public health issue. *The New England Journal of Medicine, 331,* 712–716.

United Nations Children's Fund. (2013). *Female genital mutilation/cutting: A statistical overview and exploration of the dynamics of change.* New York, NY: Author.

Utz-Billing, I., & Kentenich, H. (2008). Female genital mutilation: An injury, physical and mental harm. *Journal of Psychosomatic Obstetrics & Gynecology, 29,* 225–229.

Walls, M. (2009). The emergence of a Somali State: Building peace from a civil war in Somaliland. *African Affairs, 108,* 371–389.

World Bank & United Nations Population Fund. (2004). *Female genital mutilation/cutting in Somalia*. New York, NY: Authors.

World Health Organization. (1995). *Female genital mutilation: Report of a WHO Technical Working Group.* Geneva, Switzerland: Author.

World Health Organization. (1997). *Female genital mutilation: A joint WHO/ UNICEF/UNFPA statement.* Geneva, Switzerland: Author.

World Health Organization. (2008). *Eliminating female genital mutilation: An interagency statement*. Geneva, Switzerland: Author.