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The prevalence of female genital mutilation and related factors among women in Kamyaran, Iran

Mitra Bahrami[1], Ebrahim Ghaderi[2], Erfan Farazi[1], Afshin Bahramy[3]

1 Student Research Committee, Kurdistan University of Medical Sciences, Sanandaj, Iran
2 Social Determinants of Health Research Center AND Department of Epidemiology and Biostatistics, Faculty of Medicine, Kurdistan University of Medical Sciences, Sanandaj, Iran
3 Department of Medical Genetics, School of Medical Sciences, Tarbiat Modares University, Tehran, Iran

Original Article

Abstract

BACKGROUND: Female genital mutilation (FGM) is defined as an injury of the external female genitalia for cultural or non-therapeutic reasons. The aim of this study was to evaluate the prevalence of FGM and related factor among women in Kamyaran, Iran.

METHODS: A cross-sectional study was carried out among women referring to health centers of Kamyaran in 2014. The sample size for the study was 380 women, and with regard to the possibility of dropping, 400 subjects were included. Data were collected by researchers' questionnaire containing two parts. The first part was demographic information, and the second was information associated with genital mutilation. Reliability was assessed by using Cronbach's alpha coefficient, which was 0.85. Data were analyzed by SPSS software using descriptive statistics, and chi-square, and logistic regression tests.

RESULTS: The prevalence of FGM was 50.5%. In the age group of 21-30 years, there were 168 (42%) women. 263 women (65.8%) were married and 146 (36.5%) women had diploma. 328 women (82%) were Sunni and 249 (63.3%) were born in city. There was significant difference between FGM and women's age as well as religion of father and mother ($P < 0.050$). There was no significant difference between FGM and marital status, education of father and mother, and place of birth ($P > 0.050$).

CONCLUSION: According to the results, FGM is a deep cultural problem in Kamyaran city and there is a need for programs to reduce its rate.

KEYWORDS: Genital Mutilation, Women, Iran

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Introduction

Female genital mutilation (FGM) has long been practiced in about thirty African countries, some parts of Asia, and the Middle East, among different religions and denominations.[1-5] According to the definition of the World Health Organization (WHO), FGM is all the methods used to damage or cut all or part of the external female genitalia for non-medical reasons,[6] which is a type of violence against women and their rights.[7] From the medical viewpoint, FGM not only does not have any positive effects on women's health, but also causes short and long-term mental and physical complications such as anxiety, depression, and posttraumatic stress disorder (PTSD).[1,2,8-10]

Among the reasons for FGM, religious beliefs, attitudes, cultural norms, and sexual morals can be cited.[5,11-14] Other factors associated with circumcision are the age, type of religion, cultural context and beliefs, family

Corresponding Author:
Mitra Bahrami
Email: m66bahrami@gmail.com

level of education, parent's jobs, and the history of circumcision in other family members.[5,11,14,15]

Despite the great efforts to reduce FGM in recent years by WHO, government agencies, and other non-governmental organizations (NGOs), there are between 100 to 140 million women and girls circumcised in the world,[1,2,5,16,17] and 3 million girls are exposed to be circumcised every year.[2] This is usually done at a young age and up to 15 years of age.[1,18] According to the studies conducted, FGM in Iran is still done in Azerbaijan, Kurdistan, Kermanshah, and Hormozgan.[5,19,20] There is little information about the prevalence of FGM in Iran, and few studies have been conducted in this regard. Although the government has done a great deal to reduce it with education in high risk areas, studies have reported FGM to be from 32% to 70%.[5,19,20] There is no statistical information in this regard in Kurdistan, Iran, but in a study on Kurdish women, Arasteh et al. reported that the prevalence of sexual dysfunction was about 77%,[21] which might be indicative of problems in the sexual health in this province.

Kamyaran is one of the cities of Kurdistan province of Iran, with its specific traditional context and culture; in some areas of Kamyaran the girls are still being circumcised. Considering the importance of complications of circumcision on women's physical and psychological health and that so far no studies have been conducted on this issue in this city, the present study was conducted to determine the prevalence of circumcision and related factors among women in Kamyaran for using as evidence for intervention by health system.

Materials and Methods

This cross-sectional study was done in 2014 in Kamyaran (located in south of Iran's Kurdistan). Given the context of Kamyaran, there are few private clinics in this city, and most people refer to governmental health centers for health care. Considering the similar studies conducted,[19] (the prevalence of circumcision was 55.7%, accuracy 5%, and the type 1 error 5%), the sample size was calculated as 380. Given the probability of sample drop, 400 questionnaires were collected and completed. The study was approved by Kurdistan University of Medical Sciences Ethics Committee (REC.MUK.1393.142).

Kamyaran has 3 healthcare centers that according to the population covered by each center, the sample size was determined proportionate to those centers. Sampling method was convenient sampling from among women referring to health centers for any reason and from among all ages, which was started one day of the week. Moreover, the subjects entered the study until the sample size was complete. Prior to completing the questionnaires, while the purpose of the study was explained, the permission was obtained from participants or their mothers, and the circumcision status was enquired only by asking questions, and due to the sensitivity of the issue, the examination was avoided. Moreover, they were assured of the confidentiality of the information.

A researcher-made questionnaire containing two parts was used to collect information. The first part was demographic information, and the second part was information related to circumcision. The reliability of the questionnaire was obtained in two rural health centers using Cronbach's alpha coefficient (0.85). One researcher was trained in each center -with coordination established between them- to ask the question in the same way and complete the questionnaire. The data were then described using SPSS software (version 16, SPSS Inc., Chicago, IL, USA), and chi-square and logistic regression tests were used to analyze the data.

Results

Response rate in our study was 93.9%

(400/426). The findings indicated that 263 subjects (65.8%) were married, 146 (36.5%) had high school diploma, 328 subjects (82%) were from Sunni religion, and the birthplace of 249 subjects (63.3%) was city. Moreover, 202 women (50.5%) participating in the study had been circumcised (Table 1).

Table 1. Socio demographic distribution of the study population

Variables	n (%)
Age (years)	
0-10	69 (17.2)
11-20	51 (12.8)
21-30	168 (42.0)
31-40	71 (17.8)
40 <	41 (10.2)
Marital status	
Single	54 (13.5)
Married	263 (65.8)
Child	83 (20.7)
Education	
Illiterate	39 (9.8)
Primary	99 (24.8)
High school	70 (17.5)
Diploma and above	146 (36.5)
Religion	
Sunni	328 (82.0)
Shiite	72 (18.0)
Place of birth	
City	249 (62.3)
Village	151 (37.8)
Father's job	
Non-governmental	350 (87.5)
Governmental	50 (12.5)
Mother's job	
Employed	93 (23.2)
Housewife	307 (76.7)
The state of circumcision	
Yes	202 (50.5)
No	198 (49.5)

The highest prevalence of circumcision was in the age group over 40 years with a prevalence of 68.3%, and the lowest was in the age group under 10 with a prevalence of 42%. 141 circumcised subjects (53.7%) were married and the rest 28 (51.7%) were single.

According to Table 2, the prevalence of circumcision was higher in older ages (P = 0.006). FGM was somewhat lower with increasing parental education, but this difference was not statistically significant (P = 0.120). The prevalence of circumcision in Sunni religion mothers' children was 53.6% and in children whose mothers' were Shiite was 35.7%, that was statistically significant (P = 0.050). The prevalence of FGM did not have statistically significant correlation with parental job (P = 0.510). Regarding birthplace (city or village), the prevalence of circumcision was approximately equal with no statistically significant differences between the people with rural and urban place of birth (P = 0.520).

In multivariate analysis with controlling other factors, the prevalence of circumcision was higher in the age group over 40 compared to those under 10 (P = 0.031) [95% confidence interval (CI) = 1.107-8.366], with no significant differences among other age groups (Table 3). The level of mother's education, the birthplace of the child, and father's occupation did not have a significant relationship with circumcision, but the prevalence of circumcision in the Sunni religion was more than the Shiite (P = 0.015) (95% CI = 1.147-3.630).

Discussion

Given the findings of the study, the prevalence of FGM among participant women in the study was 50.5%. Although the prevalence of FGM was more common at age over 40, it was almost equal in other age groups and increased a little with age increase. Female circumcision was statistically significant in women with Sunni religion, but it was also common in the Shiite living in Kamyaran. There was no statistically significant relationship between female circumcision and mother and father's education.

The prevalence of women circumcision in the study of Pashaei et al. in Kermanshah, Iran, was 55.7%,[22] in the study of Ahadi et al. in Hormozgan, Iran, 70%,[20] in Yasin et al. study in Iraqi Kurdistan 70.3%,[15] and in the study by Saleem et al. in Erbil, Iraq, 23%.[23]

Table 2. Factors associated with female genital mutilation (FGM) in women participating in the study

Variables	The state of circumcision		P
	No [n (%)]	Yes [n (%)]	
Age (year)			
0-10	40 (58.0)	29 (42.0)	0.090
11-20	28 (54.9)	23 (45.1)	
21-30	81 (48.2)	87 (51.8)	
31-40	36 (50.7)	35 (49.3)	
40 <	13 (31.7)	28 (68.3)	
Marital status			
Married	122 (46.3)	141 (53.7)	0.460
Single	26 (48.3)	28 (51.7)	
Child	46 (55.4)	37 (44.6)	
Father's education			
Illiterate	73 (43.5)	95 (56.5)	0.130
Primary	62 (53.0)	55 (47.0)	
High school	26 (49.1)	27 (50.9)	
Diploma and college	37 (59.7)	25 (40.3)	
Mother's education			
Illiterate	106 (45.3)	128 (54.7)	0.110
Primary	53 (54.1)	45 (45.9)	
High school	15 (48.4)	16 (51.6)	
Diploma and college	24 (64.9)	13 (35.1)	
Mother's religion			
Sunni	153 (46.4)	177 (53.6)	0.006
Shiite	45 (64.3)	25 (35.7)	
Father's religion			
Sunni	150 (46.2)	175 (53.8)	0.005
Shiite	48 (64.0)	27 (36.0)	
Father's job			
Non-governmental	167 (47.7)	183 (52.3)	0.050
Governmental	31 (62.0)	19 (38.0)	
Mother's job			
Employed	48 (51.1)	45 (48.9)	0.500
Unemployed	146 (47.5)	161 (52.5)	
Place of birth			
City	123 (49.4)	126 (50.6)	0.950
Village	75 (49.7)	76 (50.3)	

This shows the high prevalence of this practice among women in these cities. Kamyaran is located in the neighborhood of Kermanshah province and Ravansar city, where Pashaei et al. carried out their study.[22] The prevalence of circumcision in Pashaei et al.[22] study was close to the prevalence in our study, 55.7%. These similar rates can be due to the same culture, beliefs, and customs existing among the people of these two cities.

The results showed a significant relationship between age and circumcision, with the rate of circumcision higher at older ages. This shows that FGM has been more prevalent in the past, and with increase in awareness of people in the past decades, the rate of FGM has decreased. Accordingly, in our study, the lowest incidence of circumcision was in the age group of 0-10 with 42% incidence, which is also high. Consistent with this, according to Ahmady, FGM was lower in lower age groups, so that the rate of FGM in age group of 15-29 years was 30% less than the age group of 30-49.[5]

Table 3. Relationship of female genital mutilation (FGM) with different variables by using logistic regression analysis

Variable		Beta Coefficient	SE	P	OR	95% CI	
						Lower	Upper
Age groups (year)	0-10	-					
	11-20	-0.023	0.412	0.955	0.977	0.436	2.189
	21-30	0.301	0.368	0.413	1.352	0.658	2.778
	31-40	0.240	0.431	0.578	1.271	0.546	2.957
	40 <	1.113	0.516	0.031	3.043	1.107	8.366
Mother's education	Diploma and college	-					
	High school	0.554	0.515	0.282	1.740	0.634	4.777
	Primary	0.394	0.457	0.388	1.483	0.606	3.631
	Illiterate	0.616	0.482	0.201	1.852	0.720	4.763
Mother's religion	Shiite	-					
	Sunni	0.713	0.294	0.015	2.041	1.147	3.630
Place of birth	Village	-					
	City	-0.428	0.260	0.099	0.652	0.392	1.084
Job of father	Employed	-					
	Unemployed	0.132	0.353	0.710	1.141	0.571	2.280

SE: Standard error; OR: Odds ratio; CI: Confidence interval

In theirs study, Al-Khulaidi et al. showed that during the last decades, the rate of FGM has decreased from 61.9% in 1997 to 56.6% in 2003.[12] One of the possible reasons for this can be that, as circumcised women have experienced unpleasant complications of it in their lives, and as health and well-being awareness has increased, they are not inclined to circumcise their daughters. In their study, Abolfotouh et al. showed that nearly half of the circumcised women did not intend to circumcise their daughters.[24] In addition, raising public awareness has led to a decrease in this rate over the past years at younger ages.[12] Given people's need to understand the correct health information and beliefs related to health, it is imperative to inform the community about the present generation and correct their attitudes toward solving this health problem. Moridi et al. study indicated that an appropriate training to women could promote their health.[25] We did not expect such high prevalence in under 10 age group.

Considering parental education and FGM, our expectation was to see decrease in circumcision with an increase in the level of parent education, but the results did not significantly differ. However, the overall prevalence of FGM was generally lower by increasing parents' literacy rates. One of the reasons for this can be that the people of this city mostly live in extended families with grandparents, who have a direct effect on the decision to have children circumcised, and FGM is a deep cultural problem. The results of Ahadi et al.,[20] Pashaei et al.,[26] Ahmady,[5] Yasin et al.,[15] and Saleem et al.[23] have shown a relationship between the low level of parental education and the increased incidence of circumcision in girls. WHO has also declared illiteracy and low literacy as important factors for the persistence of FGM.[2] Given the effective role of education in the practice of circumcision, more efforts should be made to raise the level of education of parents, especially mothers, and inform them; but in certain cultural conditions, one should not expect that with increase in knowledge, FGM could easily be reduced.

The results showed that religion was one of the factors affecting circumcision, with higher prevalence of it in Sunni women compared to the Shiite. There was also a relationship between father and mother's religion with

FGM. Ahmady and Shabila et al. have also referred to the connection between Sunnis and circumcision.[5,14] Given the fact that FGM exists in the teachings of Sunni religion but not in Shiite religion, FGM was expected to be low in the Shiite women, but the results showed that FGM was also performed by Shiites in Kamyaran. Cultural integration between Shiite and Sunni people in this city seems to be high. This has doubled the researchers' concerns over the high rate of female circumcision in women, because one can conclude that the roots of FGM in this region are inculcated very deeply in their culture, and even religion cannot completely eliminate it.

The parental occupation and birthplace of the person did not significantly correlate with the prevalence of circumcision; whereas employed and urban people were expected to have a much lower prevalence of circumcision. This issue and previous results of this study all indicate deep cultural and special beliefs in this region that even many influential factors on health promotion have not been able to reduce FGM; and studying this profound cultural belief needs conducting qualitative studies. However, this study had a limitation that was the lack of the possibility of examining women to determine the type of circumcision in this city; therefore, we could not examine the prevalence of different types of circumcision. Maybe educated and urban people have more superficial FGM than others, and the prevalence of deep FGM is less than this value.

Female circumcision has different degrees and is divided into 4 degrees, which varies from cutting and removing one part of the clitoris to the complete removal of large lobes.[2,6] FGM can be one of the reasons for the high prevalence of sexual disorders such as "non-stimulation".[21] Removal of clitoris and other sensitive tissues reduces women's sexual satisfaction.[8] Locals with no proper education usually do FGM in non-sterile and non-sanitary conditions with contaminated and unsafe devices without the use of any local medication; therefore, usually people who are circumcised, in addition to the complications listed, are also exposed to the transmission of infection.[1,5,27]

According to the results, planning and the need for attention at high levels of managerial and inter-institutional coordination (the Ministry of Health with the Ministry of Education) are vital for developing strategies to increase the level of public health literacy and change their behavior. In their study, Bidarpoor et al. indicated that training through public classes and direct education by health personnel are effective in increasing awareness on healthy lifestyle.[28]

Furthermore, given the role of the traditions and religion of parents in the practice of FGM, the need is felt for cooperation and involvement of religious leaders of this city to reconcile their beliefs about the health and health consequences of circumcision in women. Moreover, their potential could be used to inform people of the harms of FGM and encourage them not to do FGM.

Conclusion

The prevalence of circumcision in Kamyaran was high in all ages and had no relation to the level of education of parents, place of residence, and occupation, but was higher in Sunni religion. According to the findings, female circumcision appears to be a profound cultural belief in the region, since factors such as literacy have not been able to reduce it.

Conflict of Interests

Authors have no conflict of interests.

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