

Geographical variation in the prevalence of female genital mutilation in the Kurdistan region of Iraq

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Abstract

Background: Female genital mutilation is practised in the Kurdistan Region of Iraq but the reasons for this are not well understood.

Aims: This study aimed to determine the geographical clustering of female genital mutilation in the Kurdistan Region of Iraq.

Methods: A secondary analysis of data from the Iraq Multiple Indicator Cluster Survey 2011 was done. The sample included 11 384 women of reproductive age who reported having undergone genital mutilation. The prevalence of female genital was analysed according to Iraqi governorate including the three governorates of the Kurdistan Region of Iraq, district of the Kurdistan Region of Iraq, and age group (15–30 and 31–49 years).

Results: The prevalence of female genital mutilation was highest in Erbil (62.9%) and Sulaimany (55.8%) governorates in the Kurdistan Region of Iraq. The prevalence was highest in the districts of Pishdar (98.1%), Rania (95.1%), Choman (88.5%), Dukan (83.8%) and Koya (80.4%). In 20 of the 33 districts, the prevalence of female genital mutilation was significantly lower in the younger age group (15–30 years). The difference between the two age groups was small and not statistically significant in the districts of Pishdar, Rania and Dukan. The main cluster of districts with a high prevalence of female genital mutilation is located in the eastern part of the Kurdistan Region of Iraq along the border with the Islamic Republic of Iran.

Conclusions: Further research is needed to explore the determinants of the continued high prevalence of female genital mutilation in this area.

Keywords: female genital mutilation, prevalence, Kurdistan Region of Iraq

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Introduction

Female genital mutilation is the “partial or total removal of the external female genitalia or any other injury to the female genitalia for non-medical reasons”. Female genital mutilation is considered a violation of human rights of girls and women and is an important manifestation of gender inequality and discrimination (1). Furthermore, the procedure is associated with immediate and long-term health risks and consequences. The immediate consequences of female genital mutilation include pain, bleeding, infection and difficulty in passing urine, while the long-term consequences include chronic pain, chronic infections, poor quality of sexual life, birth complications and psychological problems (2,3). Female genital mutilation occurs most frequently in the western, eastern and north-eastern regions of Africa and some countries in Asia and the Middle East. More than 125 million living girls and women from 29 countries have been affected by this harmful practice (4,5).

Female genital mutilation is commonly practised in the Kurdistan Region of Iraq. The prevalence of the practice is about 40% (6). The commonest type of female genital mutilation in this region is type I (76–99%) (6–8), which includes partial or total removal of the clitoris or

the prepuce (clitoridectomy) (1). It is carried out on girls at an average age of 7 years (8).

The roots of female genital mutilation in this region are not well understood. It is practised in the Iraqi and the Iranian Kurdish areas, but generally not in other parts of Iraq and the Kurdish areas of neighbouring Turkey (9). Religious, social and cultural factors are together responsible for the practice of female genital mutilation (5). An important, instigating factor for the continuation of this practice is the inheritance of tradition and customs in the family (8,10). Therefore, this study aimed to detect clustering of female genital mutilation in the Kurdistan Region of Iraq and identify the areas in the region where its prevalence is highest. A broader goal of the study was to assess the time trend of the practice in the different clusters by comparing the prevalence of female genital mutilation in two age groups by geographical region.

Methods

Study design and sample

This was a secondary analysis of data from the Iraq Multiple Indicator Cluster Survey 2011 (6). The 2011 survey is the latest multiple indicator cluster survey conducted in

Iraq. The 2011 survey was conducted by the Iraqi Central Statistics Organization and the Kurdistan Regional Statistics Office with the support of the United Nations Children's Fund (UNICEF) and the Iraqi Ministry of Health. The survey aimed to provide estimates for a number of indicators on the situation of children and women at both the national and regional levels. The survey covered all 18 governorates and 118 districts of Iraq, including the three governorates (Duhok, Erbil and Sulaimany) and the 33 districts in the Kurdistan Region of Iraq. Access to the datasets was granted by UNICEF.

The survey included a representative sample of 36 592 households in 3658 primary sampling units for the whole of Iraq including a sample of 10 231 households in 1023 primary sampling units in the Kurdistan Region of Iraq. Of these 10 231 households, 9761 were occupied and 9717 included individuals who were successfully interviewed. Thus, the household response rate was 99.5%. In the interviewed households, 14 106 women aged 15–49 years were identified.

A two-stage sampling strategy was adopted by the 2011 survey (6). Firstly, 31 primary sampling units were selected within each district with systematic probability proportional to size. Within each district, the primary sampling units were proportionately distributed between urban and rural areas. Secondly, the selected primary sampling units were mapped and numbered. The list of the households within each selected primary sampling unit was prepared, and a systematic random sample of 10 households was selected from the list. All women aged 15–49 years in each selected household were invited to participate in the study. Of 14 106 eligible women, 13 442 participated in the survey giving a response rate of 95.3%. Of these 13 442 women, 11 384 responded to a question on whether they had undergone genital mutilation; these women were included in the data analysis. For the whole of the country of Iraq, 26 456 eligible women responded to the question on genital mutilation status and were included in the data analysis for calculating the prevalence of female genital mutilation in the different governorates of Iraq.

Data collection

The Multiple Indicator Cluster Survey 2011 included three questionnaires: a household survey questionnaire, a women's questionnaire, and an under-5 questionnaire. The questionnaires were based on the Multiple Indicator Cluster Survey 4 model questionnaires (11). The household questionnaire was administered to a knowledgeable adult living in the household and included questions on the household members, education, water and sanitation, household characteristics, child labour, child discipline, handwashing, salt iodization and water testing. The women's questionnaire, the primary focus of the present study, was administered to all women aged 15–49 years in the selected households. It collected information about women's sociodemographic characteristics, child mortality (with birth history), knowledge of HIV/AIDS transmission, desire for the last birth, maternal and newborn

health, any illness symptoms, use of contraception, unmet contraception needs, whether they had undergone female genital mutilation, and attitudes towards domestic violence. The under-5 questionnaire for children was done with mothers or caregivers of children under 5 years of age living in the households, and included questions about the age, birth registration, breastfeeding, early childhood development, immunization, care of illness and anthropometry.

Data collection in the Kurdistan Region of Iraq was carried out from 13 February to 18 March 2011. In each district, a female physician administered the women's questionnaire to the participating women by direct interview and in private.

The main outcome variable of interest of this study was the self-reported genital mutilation status of the women who participated in the survey. This outcome variable was extracted from the dataset of the female genital mutilation module of the women's questionnaire. The exposure variables included the age of the women and the governorate and district of residence.

Data analysis

SPSS, version 19 was used for data analyses. The prevalence of female genital mutilation was calculated by governorate for the whole of Iraq and by district for the Kurdistan Region of Iraq. The chi-squared test was used to assess the difference in the prevalence of female genital mutilation between two age groups (15–30 years and 31–49 years) for each district of the region. A *P* value of ≤ 0.05 was considered statistically significant. The prevalence of female genital mutilation by governorate of Iraq and district of the Kurdistan Region of Iraq and the difference in the prevalence between the two age groups were analysed spatially and are presented in maps.

Ethical considerations

The survey protocol of the Multiple Indicator Cluster Survey 2011 was approved by the Iraqi Ministry of Health, and the survey was conducted in coordination and cooperation with the ministry. All the participants of the Multiple Indicator Cluster Survey 2011 were requested to provide written or verbal informed consent before participation.

This study, which used data from the 2011 survey, was approved by the Research Ethics Committee of Hawler Medical University.

Results

The sociodemographic characteristics of the 11 384 women from Kurdistan Region of Iraq who were included in this study are shown in Table 1. The majority had of governorates of Iraq, the prevalence of female genital mutilation was highest in Erbil governorate (62.9%), followed by Sulaimany (55.8%), Kirkuk (22.5%), Duhok (4.6%) and Salahaddin (3.3%). The prevalence in the other governorates of Iraq was extremely low ranging from 0% to 1.3% (Figure 1).

Table 1 Sociodemographic characteristic of the study participants from the Kurdistan Region of Iraq

Characteristic	No. (%) (n = 11 384)
Age group (years)	
15–30	6 741 (59.2)
31–45	4 643 (40.8)
Education level	
No education	3 353 (29.5)
Primary	3 919 (34.4)
Secondary	3 067 (26.9)
Higher	1 045 (9.2)
Employment	
Employed	1 309 (11.5)
Not employed	10 053 (88.3)
Marital status	
Married	6 564 (57.7)
Single	4 457 (39.2)
Widowed	236 (2.1)
Divorced	106 (0.9)
Separated	21 (0.2)
Wealth index quintile	
Poorest	3 276 (28.8)
Second	3 071 (27.0)
Middle	2 440 (21.4)
Fourth	1 541 (13.5)
Richest	1 056 (9.3)
Governorate	
Duhok	1 807 (15.9)
Sulaimany	5 891 (51.7)
Erbil	3 686 (32.4)
Area	
Urban	7 548 (66.3)
Rural	3 836 (33.7)

Figure 1 Prevalence of female genital mutilation all governorates of Iraq, including the three governorates of the Kurdistan Region of Iraq



The prevalence of female genital mutilation in the districts of Duhok governorate ranged between 0% in Zakho district and 10.3% in Bardarash district. The prevalence in the districts of Erbil governorate ranged between 88.5% in Choman district and 36.2% in Mergasur district. The prevalence in the districts of Sulaimany governorate ranged between 13.4% in Penjwin district and 98.1% in Pishdar district. The prevalence of female genital mutilation was highest in the districts of Pishdar (98.1%), Rania (95.1%), Choman (88.5%), Dukan (83.8%) and Koya (80.4%), while it was lowest prevalence was in the districts of Zakho (0%) Duhok (0.4%) and Sumel (0.5%) as shown in Figure 2.

The prevalence of female genital mutilation was lower in the age group 15–30 years than the age group 31–49 years in most of the districts except for Pishdar and Duhok. The difference was statistically significant in most of the districts except for most districts of Duhok where the overall prevalence was low, and in the districts of Pishdar, Rania, Dukan, Rawanduz, Sharbazher, Soran and Mergasur where the overall prevalence was high. The difference between the two age groups (15–30 years and 31–49 years) was especially evident and significant in the districts of Khanaqeen (24.5% versus 67.8%, $P < 0.001$), Sharazur (35.6% versus 73%, $P < 0.001$), Kalar (27.1% versus 62.1%, $P < 0.001$), Halabja (17.4% versus 47.3%, $P < 0.001$) and Qaradagh (40.7% versus 70.4%, $P < 0.001$). The difference between the two age groups was very small and not significant in the districts of Pishdar (98.2% versus 97.9%, $P = 0.853$), Rania (94.4% versus 96.3%, $P = 0.426$) and Dukan (83.4% versus 84.3%, $P = 0.827$). Figure 3 show the difference in the prevalence of female genital mutilation between the two age groups (15–30 years and 31–49 years) by districts of the Kurdistan Region of Iraq.

Discussion

The prevalence of female genital mutilation was extremely high in the Kurdistan Region of Iraq, particularly in Erbil and Sulaimany governorates. The prevalence was also high in Kirkuk governorate where Kurds constitute a large proportion of residents. The prevalence of female genital mutilation varied within the Kurdistan Region of Iraq; it was very low in Duhok governorate compared with Erbil and Sulaimany governorates.

There was also a great variation in the prevalence of female genital mutilation at the districts level in the same governorates. The reason for this wide variation in prevalence between the Kurdistan Region of Iraq and the rest of Iraq and within the region itself is unclear. Female genital mutilation is deeply entrenched in cultural and societal beliefs and values in countries where it is practised (12). Social and cultural traditions as well as a perceived dictate of religion are considered the main reasons for performing female genital mutilation in different countries including the Kurdistan Region of Iraq (7,8). Kurds are Muslims as is most of the population of Iraq and are predominantly Sunni Shaf'ites similar to the population of many other governorates of Iraq (13). Therefore, the wide variation in the prevalence of female

genital mutilation between and within the governorates in the Kurdistan Region of Iraq, and between this region and the rest of Iraq indicates that religion per se is not responsible for the practice.

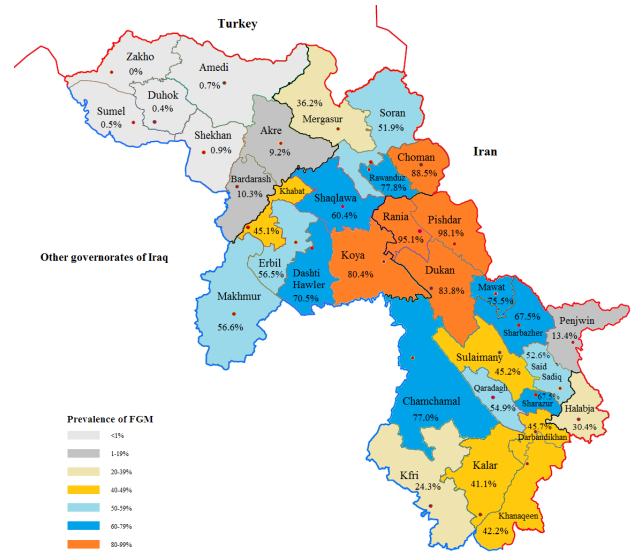
Islamic religious leaders take varying positions on female genital mutilation. Some religious leaders promote it, others consider it irrelevant to religion, while some others contribute to efforts to eliminate it (5,14). Previous studies have reported that 38.8–50.3% of people considered the dictate of religion as the main reason for practicing female genital mutilation in the Kurdistan Region of Iraq (7,8). Three schools of Islamic law consider female genital mutilation a recommendation while one school, the Shafi'i school of law, considers it is compulsory. However, each school presents differently in different countries depending on sociocultural practices (15). This can partly explain the geographic differences in the prevalence of female genital mutilation within the Kurdistan Region of Iraq and between this region and other countries. Some respected Islamic scholars in the Kurdistan Region of Iraq have publicly condemned the practice and rejected any association between female genital mutilation and Islam, while others prefer to stay silent (16).

The prevalence of female genital mutilation was very high in the clusters of the districts of Pishdar, Choman, Rania, Dukan and Koya that are adjacent or close to some Iranian areas where female genital mutilation is relatively common. On the other hand, the prevalence was relatively lower in the clusters of Penjwin and Halabja districts that are adjacent to some other Iranian areas where female genital mutilation is not practised (17). Moreover, the prevalence was very low in the clusters of the districts of Zakho, Amedi, Duhok, Sumel and Shekhan that are adjacent or close to Turkey where female genital mutilation is not practised.

In the Islamic Republic of Iran, female genital mutilation is primarily practised in four governorates; Hormozgan province (prevalence of female genital mutilation is 60%), West Azerbaijan (21%), Kermanshah (18%) and Kurdistan (16%); the last three governorates share borders with the Kurdistan Region of Iraq (17). The prevalence of female genital mutilation in these Iranian governorates is particularly high in the districts adjacent to the Kurdistan Region of Iraq. These districts include: Piranshahr (prevalence of female genital mutilation is 27%), Sardasht (23%) and Mahabad (21%) in West Azerbaijan governorate; Paveh (41%), Ravansar (23%) and Javanrood (18%) in Kermanshah governorate; and Mariwan (42%) and Kamiaran (32%) in Kurdistan governorate. However, the prevalence was very low in the other districts of the same governorates (17).

Having such clustering of high or low prevalence rates of female genital mutilation in the Kurdistan Region of Iraq extending across the border with the Islamic Republic of Iran and Turkey suggests that cultural and historical factors may play a role in the practice. People often believe that female genital mutilation is a positive cultural tradition and an essential part of the culture. Many women still believe in female genital mutilation

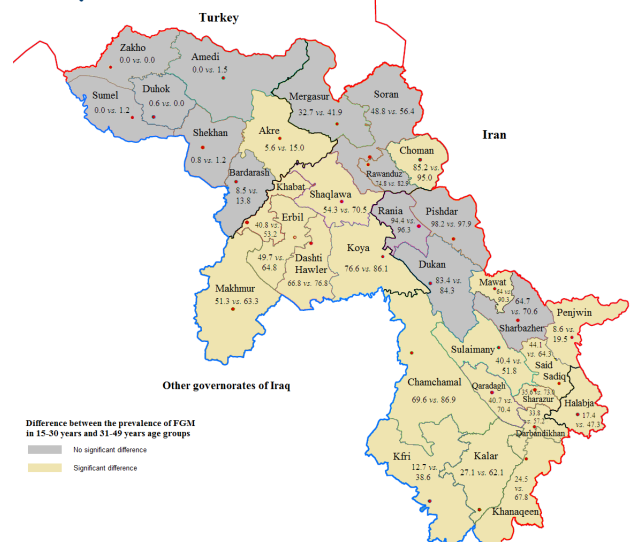
Figure 2 Prevalence of female genital mutilation in the districts of the governorates of the Kurdistan Region of Iraq



to avoid social embarrassment or stigma. Cultural and social traditions are primarily responsible for the practice of female genital mutilation in most settings. They are even more important than the religion as the main reason for female genital mutilation in many instances (18,19). This applies in particular to the Kurdistan Region of Iraq as most of the available studies consider social and cultural traditions the main drivers of the practice of female genital mutilation (40.7% to 46.7%) (7,8,20).

The prevalence of female genital mutilation was generally lower younger girls and women which might indicate that the practice is decreasing over the years. Other studies from the Kurdistan Region of Iraq also showed that the prevalence of female genital mutilation was low (23%) in girls and women aged up to 20 years

Figure 3 Districts of the Kurdistan Region of Iraq in which the prevalence of female genital mutilation in girls/women aged 15–30 years was significantly lower than in women aged 31–49 years



(7) compared with 58% for all women of reproductive age (8). A similar trend has also been reported in the Islamic Republic of Iran where the prevalence of female genital mutilation in the governorates and districts known to practice it is 30% lower in girls and women aged 15–29 years than women aged 30–49 years (17).

The prevalence of female genital mutilation was significantly lower in the younger age group in some districts, while there was no significant difference in other districts. Lack of a significant difference between the two age groups was primarily seen in the districts with a very high or very low prevalence of female genital mutilation. This would be expected in the districts with very low prevalence as the prevalence in both age groups was too low to show any statistically significant difference. However, districts with a high prevalence of female genital mutilation that did not show any significant differences between the two age groups should be considered for further research to understand the reasons for the persistent practice and to direct interventions to ban or reduce it.

An important limitation of this study is that the genital mutilation status of girls and women in the Iraq Multiple Indicator Cluster Survey 2011 was based on self-reporting rather than confirmation by physical examination. Unlike in other societies, such as Nigeria (14), over-reporting of genital mutilation is more common among women in the Kurdistan Region of Iraq than under-reporting (8). High

social pressure and the risk of social ostracism might make women claim they are mutilated even if they are not (20). Therefore, the prevalence revealed in this study might represent the actual prevalence. This study only aimed to detect clustering of female genital mutilation in the Kurdistan Region of Iraq and assess trends in the practice over time in the different clusters. It did not use a multivariate analysis to look at the other factors that might be risk factors for the practice of female genital mutilation.

Conclusion

This study identified a cluster of districts with a high prevalence of female genital mutilation and in which there had not been a significant reduction in the prevalence over time (the younger generation of girls and women did not report a significantly lower prevalence of genital mutilation). The cluster is located in the eastern part of the Kurdistan Region of Iraq along the border with the Islamic Republic of Iran. Further research is needed to explore the possible cultural and historical factors responsible for the high prevalence of female genital mutilation and identify the obstacles to banning and eliminating this practice. Further research is also needed to assess the main determinants of female genital mutilation using a multivariate analysis, and the Multiple Indicator Cluster Survey 4 datasets could be used for this purpose.

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Competing interests: None declared.

Variation géographique de la prévalence des mutilations sexuelles féminines dans la région du Kurdistan iraquien

Résumé

Contexte : Les mutilations sexuelles féminines se pratiquent dans la région du Kurdistan iraquien bien que les raisons ne soient pas bien connues.

Objectifs : La présente étude avait pour objectif de déterminer la concentration géographique des mutilations sexuelles féminines dans la région du Kurdistan iraquien.

Méthodes : Une analyse secondaire des données a été réalisée à partir de l'enquête en grappes à indicateurs multiples iraquienne effectuée en 2011. L'échantillon portait sur 11 384 femmes en âge de procréer ayant indiqué avoir subi des mutilations sexuelles. La prévalence des mutilations sexuelles féminines a été analysée en prenant en compte le gouvernorat iraquien y compris les trois gouvernorats de la région du Kurdistan iraquien, le district de la région du Kurdistan iraquien et les classes d'âge (15-30 et 31-49 ans).

Résultats : La prévalence des mutilations sexuelles féminines était la plus élevée dans les gouvernorats d'Erbil (62,9 %) et de Sulaimany (55,8 %) dans la région du Kurdistan iraquien. La prévalence était la plus élevée dans les districts de Pishdar (98,1 %), de Rania (95,1%), de Choman (88,5 %), de Dukan (83,8 %) et de Koya (80,4 %). Dans 20 des 33 districts, la prévalence des mutilations sexuelles féminines était significativement moins élevée dans la tranche d'âge la plus jeune (15-30 ans). La différence entre les deux classes d'âge était faible et n'était pas statistiquement significative dans les districts de Pishdar, de Rania et de Dukan. Le principal groupe de districts présentant une prévalence élevée des mutilations sexuelles féminines est situé dans la partie orientale de la région du Kurdistan iraquien, le long de la frontière avec la République islamique d'Iran.

Conclusions : Des recherches supplémentaires sont nécessaires pour analyser les déterminants de la prévalence des mutilations sexuelles féminines qui reste élevée dans cette région.

التباين الجغرافي في معدل انتشار ختان الإناث بإقليم كردستان العراق

نزار شايبه

الخلاصة

الخلفية: يُمارَس ختان الإناث في إقليم كردستان العراق، ولكن أسباب ذلك غير مفهومة جيداً.

الأهداف: هدفت هذه الدراسة إلى تحديد التوزيع الجغرافي لختان الإناث في إقليم كردستان العراق.

طرق البحث: أُجري تحليل ثانوي لبيانات مُستقاة من المسح العنقودي المتعدد المؤشرات في العراق لعام ٢٠١١. وشملت العينة ١١٣٨٤ امرأة في سن الإنجاب من النساء اللاتي أبلغن عن تعرضهن للختان. وجرى تحليل معدل انتشار ختان الإناث حسب المحافظات العراقية بما فيها المحافظات الثلاث لإقليم كردستان العراق، وأفضية إقليم كردستان العراق، والفئة العمرية (٣٠-١٥ و ٤٩-٣١ سنة).

النتائج: كان معدل انتشار ختان الإناث أعلى ما يكون في محافظتي أربيل (٩, ٦٢٪) والسليمانية (٨, ٥٥٪) بإقليم كردستان العراق. وكان معدل الانتشار أعلى ما يكون في أفضية بشدار (١, ٩٨٪) ورائية (١, ٩٥٪) وجومان (٥, ٨٨٪) ودوكان (٨, ٨٣٪) وكويه (٤, ٨٠٪). وكان معدل انتشار ختان الإناث منخفضاً انخفاضاً ملحوظاً في الفئة العمرية الأصغر (٣٠-١٥ سنة) في ٢٠ من الأفضية الثلاثة والثلاثين. وكان الفرق بين الفئتين العمريتين صغيراً وليس ذا دلالة إحصائية في أفضية بشدر ورائية ودوكان. ويقع التجمع الرئيسي للأفضية التي يرتفع فيها معدل انتشار ختان الإناث في الناحية الشرقية من إقليم كردستان العراق على طول الحدود مع جمهورية إيران الإسلامية.

الاستنتاجات: توجد حاجة إلى مزيد من البحث لاستكشاف مُحدّات استمرار ارتفاع معدل انتشار ختان الإناث في هذه المنطقة.

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