The Association Between Women's Social Position and the Medicalization of Female Genital Cutting in Egypt

CONTEXT: *Medicalization of female genital cutting (i.e., having the procedure done by a medical professional) has increased in Egypt in recent years. The relationship between a woman's social position and the decision to use a trained health professional to perform genital cutting is not well understood.*

METHODS: *Data from the 2005, 2008 and 2014 Egypt Demographic Health Surveys on 11,455 women whose daughter had undergone female genital cutting were used to examine relationships between mothers' social position and medicalization. Logistic regression models were used to identify associations between measures of social position and the decision to have genital cutting done by a trained provider.*

RESULTS: *Seventy-nine percent of women had had their daughter cut by a trained health professional. The odds of medicalization were greater among women who had a primary education (odds ratio, 1.2) or a secondary or higher education (1.8) rather than no education; who lived in wealthier households rather than in the poorest ones (1.4–2.6); and who shared decision making on large household purchases rather than had no say in such decisions (1.2). In addition, working for pay and the magnitude of the age difference between women and their husband were negatively associated with medicalization (0.99 and 0.9, respectively).*

CONCLUSIONS: *A woman's social position in Egypt is associated with medicalization of her daughter's genital cutting. Research is needed to explore the social meaning attributed to medicalized genital cutting, which may inform campaigns that could decrease the prevalence of the procedure.*

International Perspectives on Sexual and Reproductive Health, 2018, 44(3):101–109, doi: https://doi.org/10.1363/44e6618
First published: June 25, 2019

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Female genital cutting refers to procedures involving the partial or total removal of the external genitalia or other injuries to the female genital organs for nonmedical reasons.[1] The procedure has no known health benefits and, in fact, can lead to health complications–both short-term (such as infections and excessive bleeding) and long-term (such as negative obstetric outcomes, diminished sexual satisfaction and death).[2] In addition, the procedure can be traumatic and cause mental health problems.[1,2] For these reasons, international and national initiatives have attempted to convince people to abandon female genital cutting by focusing on the practice's health consequences.[3] As a result of these initiatives, the prevalence of female genital cutting has, to varying degrees, decreased in recent years in almost all countries where the procedure is practiced. At the same time, female genital cutting has become increasingly medicalized in several countries, particularly in Egypt;[3] individuals might be using health care providers to perform the procedure in an attempt to reduce the risk of medical consequences.[4]

The World Health Organization (WHO) defines medicalization of female genital cutting as "a situation in which FGC [female genital cutting] is practiced by any category of health-care provider, whether in a public or a private clinic, at home or elsewhere."[4] In this study, we examine the association between women's social position* and medicalization of female genital cutting in Egypt. The focus on Egypt is particularly interesting for three reasons. First, Egypt has a high prevalence of female genital cutting: More than 90% of Egyptian women aged 15–49 have undergone the procedure.[4] Second, Egypt has one of the highest proportions in the world of female genital cutting procedures performed by medical personnel,[5] and medicalization rates have increased in recent birth cohorts: Egypt Demographic and Health Survey (EDHS) data indicate that in 2005, some 55% of all daughters aged 17 or younger who had undergone female genital cutting had been cut by a trained health professional, while by 2014, 82% of all daughters 19 or younger who had undergone female genital cutting had been cut by a trained health professional.[3,6] These medicalized cuts were mainly performed by doctors; in other African countries, they are generally done by midwives and nurses,[5,7] and often performed at home.[8]

Third, Egypt is unique in having had a period (1994–2007) when female genital cutting was legal if performed by a health professional.[9] In 2007, a ministerial resolution banned all state-licensed health workers from performing female genital cutting, but did not impose penalties for doing so.[10] In 2008, female genital cutting was added

*We use the term "social position" to refer to whether women have material resources and to their ability to make choices within a gender stratified system.

to the penal code,[10] and in 2016 the severity of the penalties was increased,[11] although research shows that many health care providers continue to perform the practice.[12] Legal penalties have had little impact on the prevalence of female genital cutting in Egypt, because the practice is deeply embedded in religious tradition.[13,14]

While female genital cutting predates both Christianity and Islam, mothers and other community members often mention religion as a reason to perform the practice based on the common religious values of female virginity, premarital abstinence and chastity.[13,15] Although female genital cutting is practiced among both Muslims and Coptic Christians in Egypt, the procedure has a higher prevalence in the Muslim community.[7,15–17]

Female genital cutting is strongly related to women's social position in Egyptian society.[13] The social position that women occupy determines the alternatives they have regarding female genital cutting, as well as their ability to choose between these alternatives.[18]

Women play an important part in maintaining the tradition of female genital cutting, as the practice is closely linked to their roles as wives and mothers.[14] Both male and female Egyptians perceive female genital cutting as a prerequisite for marriage.[19,20] Female genital cutting is thought to raise a girl's status to that of a woman, control her sexuality,[13] eliminate her "maleness" and help her to conform to the aesthetic norm of female genitalia.[19] By safeguarding the social position and marriageability of their daughters via female genital cutting, women also secure their own social position. When women are less dependent on their husband and marriage, the role of female genital cutting as a prerequisite to their daughters' marriage is less salient.[16] Compared with their peers, women who have alternative sources of empowerment—such as education or economic independence—may have less need to be guided by tradition and are less subject to social control, and therefore are less likely to have their daughters cut.[15,16]

Studies show that, in Egypt, women of higher social position—as measured by a variety of indicators—are more likely than women of lower social position to oppose female genital cutting, less likely to have their daughters cut or both.[8,15–17,21–24] For example, women who are educated, employed or live in wealthier households are more likely to oppose female genital cutting and less likely to have their daughters cut than women who are not educated, are unemployed or live in poorer households, respectively.[8,15–17,21–24] Conversely, women are more likely to support female genital cutting and to have their daughters cut if they are married[22] (especially if they married at a younger age[17]), are much younger than their husband,[17] have a greater number of children,[16] underwent female genital cutting themselves,[15–17,21] are more tolerant of domestic violence[17,25,26] and do not participate in household decisions.[21] Studies have also identified a number of relevant control variables that increase the likelihood of women abandoning female genital cutting, such as living in an urban area[8,15,21,24] and being exposed to female genital cutting–related media messages.[17,27]

In comparison with research on the prevalence of and attitudes toward female genital cutting, the literature on the association between women's social position and the medicalization of the practice is less extensive.[7,8,11,23,28] We could, however, expect that women's social position is positively associated with the medicalization of female genital cutting. Several factors may contribute to this association. First, access to medical institutions and resources differs among Egyptian women,[29] and may be greater among women with higher social position. While data on the costs of nonmedicalized female genital cutting in Egypt are lacking, research from other countries generally shows that these cuts are less expensive.[30,31] In addition to having greater ability to afford medical interventions, women who have more socioeconomic resources available to them may also have a stronger trust in and agreement with the aims of the health care system, more confidence in dealing with medical professionals and a greater ability to travel outside their communities than women with fewer socioeconomic resources.[32] Socially advantaged women are also more likely than other women to live in urban areas, where medical facilities tend to be concentrated.[33] Moreover, compared with less educated women, those with higher levels of education are more likely to have incorporated Western ideas about health and individual rights (through their schooling and exposure to the media),[30] and these women may opt for a medicalized version of female genital cutting to retain the social benefits related to the practice while simultaneously reducing some of its health hazards.[9]

Most of the empirical studies on Egyptian women's social position and the medicalization of female genital cutting have focused on women's socioeconomic position. El-Gibaly and colleagues found that daughters whose mother attained a higher level of education, who are from a higher socioeconomic household or who live in an urban region are more likely to undergo female genital cutting by a doctor than daughters whose mother attained a lower level of education, who are from a lower socioeconomic household or who live in a rural area.[8] Analyses of data from the 2014 Panel Survey of Young People in Egypt confirm these results.[23,28] Yount found that a higher paternal level of education and living in an urban region are positively associated with medicalized female genital cutting as compared with a lower paternal level of education and living in a rural region, respectively;[15] the study did not find an association between a mother's level of education, her wealth or household wealth and the medicalization of the practice. Modrek and Sieverding found that women who work for pay are less likely than unemployed women to consult a doctor on whether to circumcise their daughters, while more educated women, Muslim women and women from wealthier households are more likely to consult a doctor than those who are less educated, not Muslim and from poorer households, respectively.[7]

Second, we expect that the relationship between women's social position and the medicalization of female genital cutting is not restricted to their socioeconomic position. Because women's lives in Egypt are rooted in the domestic

sphere, family and kinship are key factors in defining the parameters of their social position. Evidence from several studies suggests that women with more decision-making power and less tolerance of gender-based violence within the household also devote a greater proportion of resources to child-centered expenditures, even after adjustment for socioeconomic factors.[34–40] Thus, women with greater power within their household may be more willing to pay for a medicalized cut and may negotiate with the health system more effectively than those with less power within their household. This may especially be the case when these women are more in favor of gender equality, making women with shared decision-making power within the household as likely to devote financial resources to their daughters as to their sons.[41] To date, only one study[15] has examined how women's position within the household is related to the medicalization of female genital cutting. The study found that the presence of the mother's relatives in the same community as her is associated with an increased likelihood of medicalization. While the presence of relatives is not a direct measure of the power that women hold within their household, kinship allies may enhance women's ability to pursue their own choices.[42]

Third, having one's daughter undergo female genital cutting with a medical provider may be perceived as "more modern."[31] Although the literature on how medicalization of female genital cutting functions as a status symbol is scant, some relevant parallels can be found in the medicalization literature on cesarean section,[43] infertility[44] and designer cosmetic surgery, such as vaginal rejuvenation.[45] In particular, the medicalization of the latter procedure has some parallels with the medicalization of female genital cutting, because both procedures are done to conform to social norms or sociocultural ideals about a woman's body and sexuality. These cases highlight how a medical procedure may serve as a status symbol, and how health risks become secondary to personal interests and social values.[46]

We build upon and extend existing studies on the relationship between women's social position and the medicalization of female genital cutting in Egypt in several ways. First, our study uses data from the 2005, 2008 and 2014 rounds of the EDHS, whereas previous studies used older data.[15,28] Moreover, our analysis includes a multivariate regression analysis that examines women's experiences with female genital cutting; previous studies included only bivariate regression analysis[23,28] or focused on whether a mother intended to have her daughter cut.[7] Finally, in accordance with a growing consensus in the literature, we use a multidimensional approach to measuring women's social position;[47] the vast majority of studies on the association between women's social position and medicalization of female genital cutting have used a woman's socioeconomic status as a proxy for her overall social position,[8,15,23,28] an approach increasingly viewed as problematic.[48]

We, therefore, include two additional dimensions of women's social position: women's social position within the household—assessed by measuring women's household decision-making power, the age difference between women and their spouse, and women's age at first birth—and women's views regarding gender equity (specifically, their attitudes toward gender-based violence). The selection of these indicators was based on current scholarship concerning the relationship between women's social position and female genital cutting, as well as available validated measures of women's social position in Egyptian society.[48,49] While freedom of movement is another important dimension of women's social position in Egypt, we exclude this characteristic from our analyses because relevant information was collected in only a subsample of the EDHS, and its measure showed insufficient reliability. In addition, we do not construct an overarching scale of women's social position, but rather examine the unique relationship between each of the individual indicators and the medicalization of female genital cutting. This decision was based on both statistical and substantive grounds: The constructive scale of these variables did not show proper levels of validity and reliability (results available upon request), and our study is exploratory in nature because the current literature on how the different dimensions of women's social position relate to the medicalization of female genital cutting is limited in scope. Overall, we expect that women who have higher socioeconomic status, have a more powerful position within the household or who favor more equal gender norms will be more likely than other women to opt for medicalized female genital cutting.

METHODS

Sample

We used data from the 2005, 2008 and 2014 rounds of the EDHS, which employs a multistage cluster sampling design to collect information from a nationally representative sample of ever-married women aged 15–49. A standardized questionnaire was administered via face-to-face interview. In addition to asking about sociodemographic characteristics, fertility, contraceptive use and other topics typically included in demographic health surveys, the EDHS included questions about whether the respondent and all her living daughters younger than 20 had undergone genital cutting, as well as questions about who had performed the procedures. Detailed information on sampling, data collection and questionnaire is available in the relevant EDHS reports.[50,51]

In the current study, we restricted the sample to mothers with at least one daughter who had undergone female genital cutting. If a mother had multiple daughters who had been cut, we used the information related to the youngest daughter. The analytic sample consisted of 11,455 women.

Measures

• *Medicalization.* On the basis of the question about who had performed the procedure, we differentiated between daughters whose female genital cutting had been performed by a medical professional and those who had been cut by

a traditional practitioner. Medical professionals consisted of doctors, nurses and other health providers, whereas traditional practitioners included dayas (traditional midwives), barbers and others. This categorization aligns with WHO definitions.[4]

• *Women's social position.* Respondents' socioeconomic position was measured via their employment status, level of education and household wealth. The employment variable indicated whether a woman was currently working. The education measure distinguished between women with no education, those who had completed a primary education and those who had completed at least a secondary education. Household wealth was classified as one of four categories: poorest, poorer, middle and richer. The original EDHS variable divided the respondents into wealth quintiles, but for the current analysis, we merged the richest two categories to have a sufficient number of respondents in each group.

Women's social position within the household was captured via three variables: age at first birth, spousal age difference and decision-making autonomy in household decisions. Age at first birth and spousal age difference (calculated by subtracting the husband's age from the wife's age) were continuous variables measured in years. Household decision-making autonomy was measured with three items that assessed whether the respondent had a shared or final say in decisions concerning her own health care, large household purchases and visits to family or relatives. Responses were coded as 2 if the respondent made decisions on her own, 1 if she shared the decision making with her partner or others and 0 if she had no say at all. Because we could not make a reliable scale out of these items (Cronbach's alpha, 0.57), we included them in the analysis as separate ordinal variables. None of these items were collinear.

In accordance with Yount,[48] traditional gender views were measured via questions on attitudes about domestic violence. Women gave their opinion on whether a husband is "justified in hitting or beating his wife" if she neglects the children, argues with him, burns the food or refuses to have sex with him. We constructed a reliable scale (Cronbach's alpha, 0.84) by summing the number of "yes" responses to the four dichotomous gender violence attitude items and dividing by four; higher scores indicate more tolerance of wife beating, which implies more traditional gender views.[48]

• *Covariates.* Our analyses adjusted for several potentially relevant variables, including the respondent's religion (Muslim or Christian), region of residence (urban governorate, urban Lower Egypt, rural Lower Egypt, urban Upper Egypt or frontier governorate), genital cutting status (whether she herself had been cut) and her age at the time her daughter was cut. We also adjusted for the daughter's year of birth, birth order and age at the time of genital cutting, as well as whether she had been cut before 2007, when Egypt implemented its law against the medicalization of female genital cutting.

Three media use variables were derived from EDHS questions that asked women how often they read newspapers or magazines, listened to the radio and watched television; response options were not at all, less than once a week and at least once a week. Since it was not possible to make a reliable scale out of these variables (Cronbach's alpha, 0.45) and there was no multicollinearity (the variance inflation factor was <2), we included the items separately in the models.

• *Missing data.* The prevalence of missing data was less than 5% for all variables, except those related to household decision-making autonomy. Missing values for these items were imputed using the multiple imputation method. Ten imputations were run using all mother-related variables included in the analysis and mother's age as predictors.

Statistical Analysis

We present descriptive statistics for the total sample, for women whose daughter was cut by a medical professional (medicalized group) and for those whose daughter was cut by a traditional practitioner (nonmedicalized group). Means are provided for the continuous variables, whereas percentages are provided for the categorical variables. Significance testing to identify differences between the two subgroups was performed using the F-test for continuous variables and Pearson's chi-square test for the categorical variables.

Next, we used logistic regression analysis to examine associations between the different dimensions of a woman's social position and the medicalization of her daughter's genital cutting. We present the results as odds ratios and 95% confidence intervals, with the nonmedicalized group serving as the reference group. All analyses used unweighted data and were performed using the statistical software SPSS 24.

RESULTS

Participant Characteristics

Of the 11,455 women in the sample, 79% had their youngest daughter cut by a medical professional, and 21% by a traditional provider. On average, women were 20 years old at their first birth and seven years younger than their husband (Table 1). The majority of respondents (57–81%) had at least some say in household decisions concerning their own health care, large household purchases or visits to family or relatives, although a sizeable proportion (43%) had no say in decisions about large household purchases. The mean score on the tolerance of domestic violence measure (0.3) indicates that, on average, respondents believed that a husband is justified in beating his wife in nearly a third of the specified circumstances. One-fifth of mothers were employed, and half had at least a primary education.

Respondents were fairly equally distributed across income groups. Nearly all women identified as Muslim (98%), and the largest proportions of respondents lived in rural Lower or rural Upper Egypt (34% and 37%, respectively). Only 7% of respondents read a newspaper or

magazine at least once a week; the most commonly used media were radio and television (used at least weekly by 43% and 95% of respondents, respectively). On average, women were 34 years old when their youngest daughter had been cut, and the daughter was their third child. Nearly all women (99.7%) had been cut themselves.

Women in the medicalized group differed from those in the nonmedicalized groups in many respects. Notably, greater proportions of women in the medicalized group shared decision making with their partner or someone else: For example, 51% of women in the medicalized group reported sharing decision making about large household purchases, compared with only 40% in the nonmedicalized group. In addition, women in the medicalized group were less tolerant of domestic violence than those in the nonmedicalized group (mean score, 0.3 vs. 0.4), and greater proportions of women in the medicalized group had at least a secondary education (37% vs. 17%) and were in the wealthiest subgroup (30% vs. 13%). Half of the women in the nonmedicalized group, but only a third of their counterparts in the medicalized group, lived in rural Upper Egypt. Furthermore, greater proportions of women in the medicalized group reported using each of the three media types at least once a week (8–96% vs. 2–93%) and having had their daughter cut after the 2007 law banning state-licensed health workers from performing female genital cutting (29% vs. 23%). Finally, women in the medicalized group were, on average, half a year older than those in the nonmedicalized group at the time their daughter was cut.

Multivariate Analyses

In the multivariate analyses, several aspects of women's social position were associated with medicalized female genital cutting (Table 2). The greater the age difference between a woman and her spouse, the lower the likelihood that her daughter had been cut by a trained practitioner (odds ratio, 0.99 per year). Women who shared decision making on large household purchases were more likely than those who did not take part in such decision making to have had their daughter cut by a health professional (1.2). Mother's age at first birth and tolerance of domestic violence were not associated with medicalization of female genital cutting.

Moreover, all three socioeconomic measures were associated with medicalization. Women who reported being employed were less likely than those who reported not working for pay to have had their daughter cut by a health professional (odds ratio, 0.9). Compared with women with no education, women with a primary education and those with a secondary or higher education had greater odds of having had their daughter cut by a health professional (1.2 and 1.8, respectively). Similarly, compared with women in the poorest households, those in the three higher wealth categories were more likely to have opted for a medicalized cut (1.4–2.6).

In addition, several covariates were associated with medicalization of genital cutting. Women who reported

TABLE 1. Selected characteristics of women whose daughter had undergone female genital cutting, by medicalization of genital cutting, Egypt Demographic and Health Survey, 2005, 2008 and 2014

Characteristic	All (N=11,455)		Nonmedicalized FGC (N=2,386)		Medicalized FGC (N=9,069)	
	N	% or mean	N	% or mean	N	% or mean
SOCIAL POSITION						
Mean age at first birth	10,857	20.1	2,247	19.4	8,610	20.3
Mean spousal age difference	10,857	−7.3	2,247	−7.2	8,610	−7.3
Decision making on own health care						
None	2,038	18.8	524	23.4	1,513	17.6***
Shared	6,176	56.9	1,140	50.8	5,036	58.5***
Full	2,636	24.3	580	25.8	2,056	23.9***
Decision making on large household purchases						
None	4,695	43.4	1,151	51.6	3,544	41.3***
Shared	5,271	48.7	903	40.4	4,361	50.8***
Full	863	8.0	179	8.0	683	7.9***
Decision making on visiting family/ relatives						
None	2,717	25.1	631	28.2	2,085	24.3***
Shared	6,657	61.5	1,288	57.5	5,369	62.6***
Full	1,448	13.4	320	14.3	1,128	13.1***
Mean tolerance of domestic violence score	10,647	0.3	2,199	0.4	8,447	0.3***
Working						
No	8,696	80.2	1,824	81.2	6,872	79.9
Yes	2,148	19.8	422	18.8	1,726	20.1
Education level						
None	5,354	49.3	1,473	65.5	3,881	45.1***
Primary	1,963	18.1	398	17.7	1,565	18.2***
≥secondary	3,540	32.6	377	16.8	3,163	36.7***
Household wealth						
Poorest	3,024	27.9	952	42.3	2,072	24.1***
Poorer	2,696	24.8	601	26.7	2,095	24.3***
Middle	2,259	20.8	397	17.7	1,862	21.6***
Richer	2,879	26.5	298	13.3	2,581	30.0***
OTHER						
Religion						
Muslim	10,577	97.5	2,173	96.8	8,404	97.7**
Christian	267	2.5	72	3.2	195	2.3**
Region						
Urban governorates	1,004	9.3	188	8.4	816	9.5***
Urban Lower Egypt	803	7.4	80	3.6	723	8.4***
Rural Lower Egypt	3,672	33.8	597	26.6	3,075	35.7***
Urban Upper Egypt	1,310	12.0	221	9.8	1,089	12.7***
Rural Upper Egypt	3,963	36.5	1,136	50.6	2,827	32.8***
Frontier governorates	104	1.0	25	1.1	79	0.9***
Frequency of reading newspaper/ magazine						
Not at all	9,225	85.1	2,086	93.0	7,139	83.1***
<once a week	895	8.3	114	5.1	781	9.1***
≥once a week	717	6.6	44	2.2	673	7.8***
Frequency of listening to radio						
Not at all	5,249	48.4	1,140	50.8	4,109	47.8***
<once a week	949	8.7	223	9.9	726	8.4***
≥once a week	4,652	42.9	881	39.2	3,771	43.8***
Frequency of watching television						
Not at all	341	3.1	115	5.1	226	2.6***
<once a week	195	1.8	46	2.0	149	1.7***
≥once a week	10,312	95.1	2,082	92.8	8,230	95.7***
Mean age of mother when daughter was cut	10,752	34.4	2,212	34.0	8,540	34.5***
Mean birth order of daughter	10,857	3.1	2,247	3.5	8,606	3.0***
Mean birth year of daughter	10,857	1994.7	2,247	1994.2	8,610	1994.9***
Year of FGC						
Before 2007	7,731	93.9	1,705	77.1	6,025	70.6***
After 2007	506	6.1	506	22.9	2,514	29.4***
Mother's FGC status						
Not cut	32	0.3	10	0.4	22	0.3
Cut	10,819	99.7	2,235	99.6	8,584	99.7

**p<0.005. ***p<0.001. *Notes*: FGC=female genital cutting. "Daughter" refers to the mother's youngest cut daughter. All values are percentages unless otherwise indicated. Percentages may not add to 100.0 because of rounding.

TABLE 2. Odds ratios (and 95% confidence intervals) from logistic regression analysis examining the likelihood that a woman's daughter had undergone medicalized female genital cutting, by selected characteristics

Characteristic	Odds ratio
SOCIAL POSITION	
Age at first birth	0.99 (0.96–1.01)
Spousal age difference	0.99 (0.98–0.99)**
Decision making on own health care	
None (ref)	1.00
Shared	1.15 (0.98–1.36)
Full	1.11 (0.94–1.32)
Decision making on large household purchases	
None (ref)	1.00
Shared	1.15 (1.00–1.32)*
Full	1.20 (0.96–1.50)
Decision making on visiting family/ relatives	
None (ref)	1.00
Shared	0.87 (0.75–1.01)
Full	0.91 (0.75–1.11)
Tolerance of domestic violence	0.89 (0.77–1.02)
Working	
No (ref)	1.00
Yes	0.87 (0.77–0.99)*
Educational level	
None (ref)	1.00
Primary	1.20 (1.05–1.37)**
≥secondary	1.79 (1.53–2.10)***
Household wealth	
Poorest (ref)	1.00
Poorer	1.38 (1.21–1.57)***
Middle	1.64 (1.41–1.91)***
Richer	2.55 (2.10–3.09)***
OTHER	
Religion	
Muslim (ref)	1.00
Christian	0.82 (0.61–1.10)
Region	
Urban governorates (ref)	1.00
Urban Lower Egypt	1.99 (1.49–2.68)***
Rural Lower Egypt	2.09 (1.69–2.59)***
Urban Upper Egypt	1.41 (1.12–1.78)**
Rural Upper Egypt	1.27 (1.02–1.57)*
Frontier governorates	0.96 (0.57–1.60)
Frequency of reading newspaper/ magazine	
Not at all (ref)	1.00
<once a week	1.05 (0.83–1.32)
≥once a week	1.99 (1.42–2.79)***
Frequency of listening to radio	
Not at all (ref)	1.00
<once a week	0.91 (0.76–1.08)
≥once a week	0.98 (0.87–1.11)
Frequency of watching television	
Not at all (ref)	1.00
<once a week	1.45 (0.94–2.26)
≥once a week	1.21 (0.94–1.57)
Age of mother when daughter was cut	1.04 (1.03–1.06)***
Birth order of daughter	0.91 (0.87–0.95)***
Birth year of daughter	1.04 (1.02–1.06)***
Year of FGC	
Before 2007 (ref)	1.00
After 2007	0.92 (0.77–1.10)
Mother's FGC status	
Cut (ref)	1.00
Not cut	1.48 (0.62–13.54)

*p<0.05. **p<0.005. ***p<0.001. *Notes*: FGC=female genital cutting. "Daughter" refers to the mother's youngest cut daughter. ref=reference group.

reading a newspaper or magazine on at least a weekly basis had twice the odds of opting for a medicalized cut than those who reported never doing so (odds ratio, 2.0). Furthermore, the odds of medicalization were greater among women who resided in urban or rural Lower Egypt (2.0 and 2.1, respectively), or in urban or rural Upper Egypt (1.4 and 1.3) than among those living in urban governorates. Finally, older age of the mother at the time their daughter was cut and birth year of the daughter were positively associated with medicalization (1.04 each), and daughter's birth order was negatively associated with the outcome (0.9).

DISCUSSION

Using data from the EDHS, we confirm previous evidence of an association between women's socioeconomic position and medicalization of female genital cutting.[7,8,28] Mothers from wealthier households had more than twice the odds of having opted for a medicalized female genital cutting than those from poor households. The economic resources that wealthy women have may make medical institutions and resources more accessible for them, and enable them to afford the costs of the medical procedure.[8,52] Education may also have an indirect effect: Because it empowers women (e.g., by increasing their ability to earn income, bargain for resources within the household, make decisions autonomously, control their fertility and participate in public life[53]), education equips them to benefit from existing services and opportunities to be accepted as a full and valuable member of Egyptian society. However, our results also show that employed women were less likely than their unemployed counterparts to medicalize their daughter's cut. This finding is consistent with the work of Modrek and Sieverding,[7] who found that women who work for pay are less likely than unemployed women to consult a doctor on whether to have their daughter cut. Future research should examine why the relationship between women's employment and the medicalization of female genital cutting deviates from that of the other socioeconomic indicators.

Moreover, our results show that women's position within the household in Egypt is associated with the medicalization of female genital cutting. A greater age difference between spouses was associated with a reduced likelihood of medicalization. A large age gap at marriage often indicates that the wife has less power in the relationship than her husband does.[54] In addition, we found that women who shared decision making concerning large household purchases were more likely to opt for a medicalized cut for their daughter than women who had no say in these decisions. These findings are consistent with previous research that shows women in developing countries who have more decision-making power within the household devote a greater proportion of the resources to child-centered expenditures than women with less household decision-making power.[55]

Our results are also consistent with the possibility that the costs related to the medical intervention of female genital cutting in Egypt are perceived to be similar to

those of other large purchases, and that when women gain some decision-making power within this domain, their daughter is more likely to be cut by a medical professional. In Egyptian society, women with shared autonomy in decision making occupy a higher social position than women with full autonomy in decision making.[56] Our finding that women with shared decision-making power—but not those with full decision-making power—are more likely than women with no decision-making autonomy to medicalize their daughter's female genital cutting is therefore in line with our expectations.

As we hypothesized, medicalization may act as a status symbol. If medicalization of female genital cutting is perceived as a luxury, it might function as marker of a woman's socioeconomic position. The preference for a medicalized procedure among members of higher socioeconomic groups has been found in other health-related domains.[43,44,57] Medicalization of female genital cutting may function as a signifier of a woman's social position as a "modern mother."[58,59] Future research is warranted to examine the social meaning that is given to the medicalization of female genital cutting, and how it is related to the position that women occupy in the gender stratification system.

Limitations

Some limitations of our study are worth noting. Although the EDHS offers an outstanding opportunity to examine the medicalization of female genital cutting, some issues that are inherent in self-reports of a sensitive topic—such as selective nonresponses or provision of socially desirable answers—may not have been eliminated; if these issues were related to our outcome, or to the independent variables, some bias in the estimates could have occurred. Women's willingness to discuss or disclose sensitive behaviors could have been affected by their religion or their own experiences with genital cutting; however, because nearly all respondents were Muslim and had been cut themselves, these characteristics were unlikely to have had a systematic effect on women's responses. The study did not include information on extended family members, in part because of data limitations, although previous research shows that extended family members may have an important role in the decision-making process regarding medicalization.[15] Some selection bias occurred because our sample consisted only of women with at least one daughter who had undergone female genital cutting. As a result, we could not make comparisons between women opting for medicalization and women abandoning the practice. Contextual factors—such as gender norms, economic opportunities, the availability of medical facilities and levels of social pressure to perform female genital cutting—were not included in the analyses, which is especially important because female genital cutting is deeply embedded in a country's culture.[60] Moreover, the availability of medical resources for individuals starts in their environment. We were not able to measure social pressure or other contextual factors, but our results show substantial regional variation in the medicalization of female genital cutting. Future research should examine the extent to which such contextual factors explain the substantial regional variation in women's choices regarding whether and by whom their daughter is cut.

Conclusions

An increasing proportion of women in Egypt are having their daughters undergo female genital cutting performed by a health professional. We show that a woman's social position in Egypt—both within and outside of her household—is associated with medicalization of the procedure. These results could help identify which women should be targeted by Egyptian campaigns aiming to discourage or eliminate female genital cutting. Further research is needed to explore the social meaning attributed in Egypt to medicalized genital cutting to inform and develop legislation and campaigns that could decrease the prevalence of the practice.

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RESUMEN

Contexto: *En años recientes, la medicalización de la mutilación genital femenina (es decir, la aplicación del procedimiento por un profesional de la medicina) ha aumentado en Egipto. La relación entre la posición social de una mujer y la decisión de utilizar un profesional de la salud capacitado para realizar la mutilación genital no está bien comprendida.*

Métodos: *Se utilizaron datos de las Encuestas Demográficas y de Salud de 2005, 2008 y 2014 de Egipto referentes a 11,455 mujeres cuyas hijas se habían sometido a la mutilación genital femenina, con el fin de examinar las relaciones entre la posición social de las madres y la medicalización. Se utilizaron modelos de regresión logística para identificar asociaciones entre los indicadores de posición social y la decisión de que un proveedor capacitado realizara el corte genital.*

Resultados: *Las hijas del setenta y nueve por ciento de las mujeres habían sido mutiladas por un profesional de la salud capacitado. Las probabilidades de medicalización fueron mayores entre las mujeres que tenían escolaridad primaria (cociente de probabilidades, 1.2) o una educación secundaria o superior (1.8) que entre las que no tenían ninguna escolaridad; también fue mayor entre las que vivían en hogares con mayores recursos que las que vivían en hogares pobres (1.4–2.6); y quienes compartían la toma de decisiones en la grandes adquisiciones familiares que quienes no tomaban parte de tales decisiones (1.2). Además, el trabajo remunerado y la magnitud de la diferencia de edades entre las mujeres y sus maridos se asoció negativamente con la medicalización (0.99 y 0.9, respectivamente).*

Conclusiones: *La posición social de una mujer en Egipto está asociada con la medicalización de la mutilación genital de su hija. Es necesaria más investigación para explorar el significado social atribuido a la medicalización de la mutilación genital, lo cual puede dar sustento a campañas que podrían disminuir la prevalencia del procedimiento.*

RÉSUMÉ

Contexte: *La médicalisation de l'excision (c'est-à-dire sa pratique par un professionnel de la santé) est en hausse depuis quelques années en Égypte. La relation entre la position sociale d'une femme et la décision de recourir, pour l'excision, à un professionnel de la santé qualifié n'est pas bien comprise.*

Méthodes: *Les données des Enquêtes démographiques et de santé égyptiennes de 2005, 2008 et 2014, concernant 11,455 femmes dont la fille avait subi l'excision, ont permis d'examiner les rapports entre la position sociale de la mère et la médicalisation de la procédure. Des modèles de régression logistique ont servi à identifier les associations entre les mesures de position sociale et la décision de s'adresser pour l'excision à un prestataire qualifié.*

Résultats: *Soixante-dix-neuf pour cent des femmes avaient fait exciser leur fille par un professionnel de la santé qualifié. Les chances de médicalisation étaient supérieures parmi les femmes instruites au niveau primaire (RC, 1,2) ou au niveau secondaire ou supérieur (1,8) par rapport à celles non instruites; parmi celles dont le ménage était mieux loti par rapport à celles vivant dans les ménages les plus pauvres (1,4–2,6); et parmi celles qui participaient à la prise de décision concernant les achats importants du ménage par rapport à celles non incluses dans cette décision (1,2). De plus, l'emploi rémunéré et l'importance de la différence d'âge entre les femmes et leur mari présentaient une association négative avec la médicalisation (0,99 et 0,9, respectivement).*

Conclusions: *La position sociale d'une femme en Égypte est associée à la médicalisation de l'excision de sa fille. Il convient d'examiner plus avant la signification sociale attribuée à l'excision médicalisée, dans le but potentiel d'éclairer les campagnes aptes à réduire la prévalence de la procédure.*

Acknowledgments

The authors thank Edwin Wouters and Stanley Yoder for their valuable feedback on earlier versions of this paper.

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