Mother, Daughter, Doctor: Medical Professionals and Mothers' Decision Making About Female Genital Cutting in Egypt

By Sepideh Modrek and Maia Sieverding

***CONTEXT**: Although female genital cutting (FGC) is illegal in Egypt and rates are declining, medicalization of the practice has increased. However, little is known about why some mothers prefer that FGC be performed by medical professionals or the degree to which such professionals may influence decisions about the practice.*

***METHODS**: Data collected in 2014 from a survey of 410 women with young daughters, and from in-depth interviews with 29 of those women, were used to examine the role of consultations with medical professionals in mothers' decisions about FGC. Women were asked about their experiences, perceptions, knowledge and intentions regarding FGC and their interactions with medical personnel. An open coding approach was used to analyze qualitative data, while multivariate regression was used to identify correlates of intending to consult a doctor and knowing that FGC is illegal.*

***RESULTS**: Medical professionals were the main providers of FGC to study participants. Mothers wanted FGC performed by doctors to mitigate the perceived risks of the procedure. About one-third of mothers planned to consult a doctor in deciding whether to have their daughters cut. Women reported that doctors performed physical examinations and subsequently recommended that daughters either be cut, not be cut or be re-examined in the future. Most respondents expressed high levels of trust in doctors.*

***CONCLUSION**: Since mothers appear to value their opinions, doctors could contribute to the abandonment of FGC if they consistently recommend against the practice. The ban on FGC is unlikely to be effective in the absence of broader social change.*

International Perspectives on Sexual and Reproductive Health, 2016, 42(2):81–92, doi: 10.1363/42e1116

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The practice of female genital cutting (FGC) has been the focus of a concerted international eradication effort since the 1970s.[1,2] Many early campaigns emphasized the adverse health consequences of the practice, an approach that has fallen out of favor in part because some advocates believe it has contributed to the medicalization of FGC.[1] Medicalization, which in this article is defined as the performance of FGC by trained medical personnel, has been the subject of considerable debate within the anti-FGC movement.[3] Central to that debate has been the question of whether medicalization is a viable harm reduction strategy in settings where abandonment of FGC may be a long way off, or whether medicalization legitimizes and ultimately perpetuates a harmful practice.[3]

Although the medicalization of FGC has been well documented in the literature, less is known about the reasons families turn to medical professionals to perform the procedure, or about their interactions with these professionals. Such information would shed light on whether medicalization has played a role in delaying abandonment of the practice. Egypt is a particularly interesting setting in which to examine this issue, because although FGC is illegal, medicalization of the practice is more extensive in Egypt than in any other country where FGC is common.[2] In addition, Egyptian mothers, who typically bear the primary responsibility for making decisions about FGC,[4] increasingly turn to doctors for information about the practice; though small, the proportion of mothers who reported consulting a physician rose from 4% in 2008 to 7% in 2014.[5] It is thus of growing importance to examine why mothers in Egypt go to health professionals for FGC-related matters, and to understand the extent to which their interactions with those professionals entail the transfer of information and advice that may influence mothers' decisions about FGC.

The Medicalization of FGC in Egypt

FGC is defined by the World Health Organization as "all procedures involving partial or total removal of the external female genitalia or other injury to the female genital organs for nonmedical reasons."[6] The organization further classifies FGC into four types, according to the severity of the cut. Type I, the partial or total removal of the clitoris, prepuce or both (clitoridectomy), and type II, the partial or total removal of the clitoris and labia minora (excision), are the most common forms of FGC in Egypt.[7] Traditionally, FGC was performed in Egypt by *dayas* (traditional birth attendants) or, less commonly, by barbers or other laypersons.[8] Two notable trends regarding FGC have been evident in

Egypt during the past two decades. First, although FGC remains nearly universal at the national level—in the 2014 Egyptian Demographic and Health Survey (DHS), 92% of ever-married women aged 15–49 reported that they had been cut[5]—prevalence has started to decline among younger cohorts. For example, according to the nationally representative 2014 Panel Survey of Young People in Egypt, 74% of 13–17-year-old girls had been cut, compared with 84% of 25–29-year-olds.[9] At the same time, medicalization of the practice has been rapid. In the 1995 Egyptian DHS, 18% of women reported that they had undergone FGC by a medical professional, and 55% said that their daughters had;[8] by the 2014 DHS, however, 38% of women and 82% of their daughters had undergone FGC by a medical professional.[5] Egypt is the only country in which medicalized FGC is performed primarily by doctors, as opposed to nurses or other trained health workers.[2]

An anti-FGC campaign has been active in Egypt since the late 1970s,[10] but opposition to the practice grew after the 1994 International Conference on Population and Development.[11] For a brief period during the mid-1990s, the Ministry of Health established a policy that allowed FGC to be performed in certain health facilities, on the idea that medicalization would reduce harm from the practice and crowd out traditional practitioners.[11,12] After anti-FGC activists expressed opposition to this policy,[3,11] a law was passed in 1997 that banned the practice unless "medically necessary." FGC was not fully banned until 2007, following the death of an 11-year-old girl from the procedure.[10] However, it was only in 2013 that the first case against a doctor for performing FGC (on a girl who subsequently died) went to trial.[13] Initially, the doctor was acquitted, but in January 2015 an appeals court sentenced him to two years in prison for the girl's death and an additional three months for performing FGC.[14,15] At the end of the year, however, the doctor had not yet been imprisoned and was still practicing medicine.[16] In April 2016, he finally turned himself in after negotiating a reduced sentence of only three months.[17] This case highlights the government's lax enforcement of the FGC ban.

Despite these trends and events, research detailing the motivations and beliefs of mothers who seek FGC services from medical professionals has been limited. Parents' motivations for having FGC done by medical professionals may be related to the desire to reduce potential negative health consequences,[2,11] yet we are unaware of any studies in Egypt that have directly asked mothers or other family members why they seek medical professionals to perform FGC. Moreover, there has been little discussion of medical professionals' role as a source of information about FGC. No official medical curriculum on FGC exists in Egypt.[18] However, a 2009 study found that of the nearly one-fifth of Egyptian doctors who admitted to performing FGC, half did the procedure out of belief in its benefits.[19] Such findings raise important questions about the information medical professionals may be providing to families who come to them for FGC.

As a first attempt to clarify the dynamics of these confidential visits, we draw on data from a mixed-methods study of Egyptian mothers' decision making about FGC. We examine mothers' reasons for having their daughters undergo or not undergo FGC, their likely choice of provider, the content of their interactions with medical professionals and the influence of these interactions on their decisions about FGC.

METHODS

Sample and Study Design

Data collection took place in January and February 2014. The first component of the study, a quantitative survey, was part of a larger project intended to explore religious, social and institutional influences on change in FGC practice in Egypt. Because evidence suggests that the rate of FGC has fallen more rapidly among the country's Christians than in the majority Muslim population,[2,12] we sought to include members of both religions, and used data from the 2006 census to identify an area of Greater Cairo where Muslims and Christians resided. The research team selected one urban and one rural site in the southern part of Qalyubeyya governorate, on the outskirts of Cairo. The urban site was a neighborhood in one of the dense informal settlements that house nearly 38% of Egypt's urban population.[20] The rural site was a set of villages located about 15 kilometers from the urban settlement. In each area, we mapped all primary sampling units designated by Egypt's Central Agency for Public Mobilization and Statistics, and randomly selected four of the units for inclusion in the study. We used a neighborhood-based sampling strategy, in which the survey team canvased selected primary sampling units and recruited eligible women.

A woman was eligible for the study if she was married, aged 25–36 and the mother of at least one daughter. Only one woman was interviewed per dwelling unit or household; in buildings occupied by an extended family, a maximum of two respondents from different dwelling units were included. To ensure sufficient representation, we intentionally oversampled Christians in the quantitative survey.

A total of 410 mothers were enrolled in the study, 269 from the urban site and 141 from the rural site. Respondents were administered a questionnaire that asked about their own FGC experiences; their intentions and decision making regarding the FGC of their daughters; their social networks; the media and other potential influences on FGC decisions; and their interactions with medical personnel concerning FGC. The survey also collected detailed social and demographic information about the mothers, their daughters and other household members.

At the end of the survey, respondents were invited to participate in a follow-up in-depth interview designed to shed light on mothers' motivations for consulting doctors for information and services. Sixty-six women agreed to participate in the qualitative follow-up, of whom we selected 29 whose daughters were close to the age at which FGC is generally performed in the study areas (around age 10 or 11). We did not oversample Christian women in the qualitative portion of the study, because this population's more rapid abandonment of FGC meant that questions related to medicalization were less relevant to them.

The in-depth interviews consisted of open-ended questions regarding the respondents' views on the benefits and harms of FGC and their decision-making process about the FGC of their daughters, including reasons for turning to medical or other practitioners to perform the procedure. Interviews also covered mothers' perceptions and practices related to the medicalization of FGC: their intention to consult a medical professional, how they select the doctors or other medical personnel whom they consult, the content of their interactions with these professionals and their level of trust in medical providers regarding FGC. Approval for the study was obtained from the Stanford University Institutional Review Board and the Central Agency for Public Mobilization and Statistics. All women provided informed consent prior to participation.

Quantitative Measures

The quantitative survey included standard questions (from the Egypt DHS and other national surveys) concerning FGC, such as whether the respondent had been cut and, if so, at what age and by what type of provider. Another standard question asked whether the respondent intended to have her daughters cut; however, on the basis of survey pretest results, we added a response option—"It depends on the opinion of the doctor"—to the usual options of "yes" and "no." Furthermore, for each daughter, we asked respondents, using an open-ended format, about the main reasons for their FGC intentions; we also asked the age at which they expected each daughter would undergo FGC and the type of practitioner who would perform the procedure.

To probe the influence of different actors' preferences regarding FGC, we presented respondents with four vignettes in which they were asked to advise hypothetical mothers on whether to circumcise their daughter. Two of the vignettes asked whether the respondent would recommend FGC if the hypothetical mother's preference conflicted with the recommendation of a doctor, and two asked for her recommendation if the hypothetical mother's preference conflicted with the presumed preference of the daughter's future husband (Table 1). The comparison with the husband was chosen because marriageability has been cited as a reason for the perpetuation of FGC.[4,21] As noted below, we were interested in the pattern of women's responses within each set (mother vs. doctor and mother vs. future husband). In our English translation of the vignettes, and in our presentation of many of the study results, we use the term "circumcision"—the most direct translation of a widely used local word (*khitan*) for FGC[12]—to more accurately reflect the questions we asked and the responses women gave.

TABLE 1. Vignettes used to compare respondents' circumcision recommendations with preferences and recommendations of hypothetical mothers, doctors and potential husbands

Vignette	Set A: Mother's preference vs. doctor's recommendation	Set B: Mother's preference vs. future husband's preference
First	Hanan is the mother of a girl who has reached the age of circumcision and she does not want to circumcise her. One day Hanan brings the girl to the doctor for a checkup and the doctor says that the girl should be circumcised. Do you recommend that she circumcise the girl or not?	Noha is the mother of a girl who has reached the age of circumcision. She doesn't want to circumcise her daughter, but hopes that her daughter will marry a traditional Egyptian man. What do you recommend she do?
Second	Mona's daughter has reached the age of circumcision and Mona wants to circumcise her. She went to the doctor for the girl to have a checkup and the doctor told her that the girl should not be circumcised. Do you recommend that she circumcise the girl or not?	Niveen is also the mother of a girl who has reached the age of circumcision. She wants to circumcise her daughter, but hopes that her daughter will marry a progressive Egyptian man. What do you recommend she do?
Response options	Mother should circumcise Mother should not circumcise Don't know	Mother should circumcise Mother should not circumcise Mother should follow doctor's opinion Don't know

Social and demographic measures included in our analyses were the respondent's age, age at first marriage, age difference with husband, education level (categorized as none/illiterate, primary/literate, complete preparatory*/incomplete secondary, secondary or more than secondary), employment status, place of residence (urban or rural), religion (Muslim or Christian), household wealth (classified into quintiles using the standard DHS index), number of children, number of daughters and age of daughters.

Analysis

We adopted a mixed-methods approach to analysis, and present the findings by themes in order to integrate the quantitative and qualitative data. We first report respondents' characteristics, both for the full survey sample and for the subsample of respondents who completed in-depth interviews. We then present descriptive analyses of the data on respondents' FGC intentions and preferences, use of medical personnel and responses to the four vignettes. In analyzing the vignette data, we examined whether the respondent's advice to the hypothetical mother reflected her own preferences (i.e., the respondent answered "should circumcise" to both questions in a set, or "should not circumcise" to both); the future husband's preferences or the doctor's recommendation

*In the Egyptian educational system, the preparatory stage refers to the three years between primary and secondary school; it is roughly equivalent to what many countries call middle school.

(the respondent answered "should circumcise," then "should not circumcise"); or the hypothetical mother's preferences (the respondent answered "should not circumcise," then "should circumcise"). Respondents who answered "don't know" were omitted from this analysis.

We used multivariate regression to examine social and demographic correlates of choosing to consult a doctor and of knowing that FGC is illegal. This analysis was restricted to data on the respondent's eldest daughter, whose age was closest to that at which FGC is typically performed, or who would already have undergone the procedure.

The in-depth interviews were digitally recorded and transcribed by a member of the field team in the original language (Egyptian Colloquial Arabic) for analysis in Atlas.ti. The second author conducted the qualitative analysis following an open coding approach, in which codes and subcodes were derived from the data rather than determined a priori. For example, interactions with a doctor regarding FGC were divided into two code families: reasons for consulting a doctor about FGC, and reasons for having FGC done by a doctor. The latter, in turn, had a subcode related to the doctor's training. Additional code families concerned such topics as the content of consultations with doctors, how respondents found a doctor for FGC, level of trust in doctors and how mothers made decisions when their preferences were contrary to the doctor's recommendation.

RESULTS

Sample Characteristics

On average, respondents were 31 years old, had been 20 years old when they first married and were about five years younger than their husband (Table 2). Fifty-nine percent had at least a secondary education, although 32% of respondents were not educated beyond primary school. Only 15% were employed. Ninety-two percent had undergone FGC, on average at about age 10.

Per the sample design, 66% of the respondents lived in the urban area and 34% in the rural site; 68% were Muslim. The wealth quintiles presented in Table 2 are those internal to the sample; a comparison of our respondents with those in the nationally representative 2012 Egypt Labor Market Panel Survey[22] indicates that our respondents were wealthier than the national population, but less likely than residents of the Greater Cairo area to be in the wealthiest quintile (Appendix Figure 1). On average, our respondents had 2.6 children, of whom 1.6 were daughters (Table 2). The girls' mean age was seven for the full sample, eight for eldest daughters and six for youngest daughters. Mothers who intended to circumcise their oldest daughter, or had already done so, reported the daughter's actual or intended age at circumcision as 10 or 11. Therefore, in a substantial proportion of cases, we captured mothers' intentions 3–5 years before they expected to circumcise their daughters.

The social and demographic characteristics of women who participated in in-depth interviews were similar in most respects to those of women in the full sample, except that, as intended, women who participated in in-depth interviews were more likely than those in the quantitative sample to be Muslim (statistical comparisons not shown). Moreover, there were no differences between the two samples in the characteristics of Muslim respondents.

Christian respondents were less likely than their Muslim counterparts to be circumcised (83% vs. 96%—Figure 1). Moreover, 89% of Christians said that they did not intend to circumcise their eldest daughter, suggesting that this population has largely abandoned the practice of FGC; only 6% intended to have their eldest daughter circumcised or had already done so, while the remaining 5% planned to get a doctor's opinion. In contrast, intentions were more evenly distributed among Muslim respondents: Twenty-one percent said they did not plan to circumcise their eldest daughter, whereas 41% either intended to do so or already had

TABLE 2. Selected personal and household characteristics of married women aged 25–36 with at least one daughter, by study sample, Greater Cairo area, Egypt, 2014

Characteristic	Full sample (N=410)	Qualitative sample (N=29)
Mean age	31.3	32.0
Mean age at first marriage	20.0	19.6
Mean age of husband	36.9	38.1
Mean age difference with husband	5.5	6.1
Education		
Illiterate	16	17
Primary/literate	16	31
Preparatory/incomplete secondary	9	0
Secondary	44	45
>Secondary	15	7
Employed	15	7
Circumcised	92	90
Mean age at circumcision†	9.6	9.6
Area of residence		
Urban	66	79
Rural	34	21
Religion		
Muslim	68	86
Christian	32	14
Wealth quintile		
1 (poorest)	20	17
2	23	21
3	19	24
4	18	24
5 (wealthiest)	20	14
Mean no. of children (range, 1–5)	2.6	2.9
Mean no. of daughters (range, 1–5)	1.6	1.9
Mean age of daughters‡		
All (range, 0–19)	6.8	7.4
Oldest (range, 0–19)§	7.8	8.8
Youngest (range, 0–19)§	5.5	5.9
Mean age of daughter at circumcision/intended circumcision††	10.7	10.7

†Among circumcised women. ‡There were 661 daughters in the full sample and 54 in the qualitative sample. §If a woman had one daughter, the daughter was classified as both the older daughter and the youngest daughter. ††Includes all daughters who had been or were expected to be cut. *Note:* All values are percentages unless otherwise indicated.

(27% and 14%, respectively) and 37% planned to seek a doctor's opinion. All of the differences between Muslims and Christians in FGC intentions were statistically significant.

We conducted a multivariate regression analysis to identify characteristics associated with women's intention to consult a doctor regarding whether to circumcise their daughters (Table 3). The odds of a respondent planning to consult a physician were reduced among women who worked for pay (odds ratio, 0.4), and elevated among those who had completed secondary school but had no further schooling (2.8), were Muslim (11.1) or were in the wealthiest quintile (2.3). Among Muslim respondents, the likelihood that a woman intended to consult a doctor was elevated among those who had completed a secondary education (3.4) or were in the wealthiest quintile (2.9).

Medicalization as Harm Reduction

Ninety-one percent of respondents who had circumcised or intended to circumcise their daughters said that they had had or would have it done by a medical practitioner (not shown). This reflects a rapid medicalization of FCG in the study population. For example, 57% of circumcised urban mothers said the procedure had been done by a medical professional, but 93% of those who had had or expected to have their daughter circumcised had had or planned to have it done by a medical professional. In the rural areas, medicalization has been even more rapid. Only 37% of circumcised rural mothers had been cut by a medical professional, but 98% had had or expected to have their daughters' circumcisions done by a medical practitioner.*

Similarly, the qualitative interview respondents who had had or intended to have their daughters undergo FGC were largely united on the importance of having a medical professional perform the procedure. The main reason they gave for seeking a medical circumcision was that medical professionals are better trained and more knowledgeable about how to perform the procedure than dayas are, and consequently the risk to the girl is lower. Respondents described a doctor as being a more "secure" option for performing circumcision because of his or her medical expertise and ability to deal with emergencies or adverse reactions. Many saw the dangers of FGC as being immediate, particularly the possibility that the girl could "hemorrhage and die"; doctors were seen as both unlikely to cause hemorrhage and better able to deal with it if it happened:

"The doctor has experience. The daya does [khitan] like a hobby, she could cause my daughter to die. But the doctor knows what he's doing comparisons with other groups were.... The doctor is safer and better—if something happens, he can fix it. He has everything that the issue

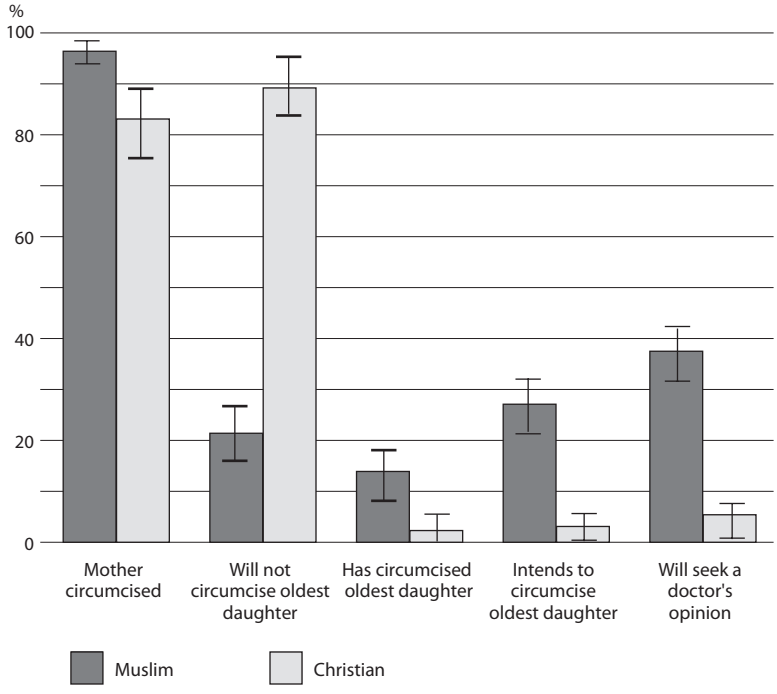
*Our results are similar to those of the 2014 DHS, which found that 92% of daughters aged 0–19 in urban governorates who had undergone FGC had been cut by doctors (85%) or other health workers (7%).

TABLE 3. Odds ratios (and 95% confidence intervals) from logistic regression analyses assessing associations between women's characteristics and their intention to seek a doctor's opinion on whether to circumcise their daughters, by sample

Characteristic	Full sample (N=408)	Muslims (N=278)
Age	1.05 (0.97–1.13)	1.04 (0.96–1.12)
Education		
Illiterate (ref)	1.00	1.00
Literate/primary	1.42 (0.50–3.98)	1.84 (0.59–5.78)
Preparatory/incomplete secondary	2.32 (0.77–7.03)	3.29 (0.94–11.50)
Complete secondary	2.84 (1.14–7.08)*	3.41 (1.21–9.67)*
>Secondary	1.78 (0.56–5.60)	1.93 (0.52–7.22)
Employed		
No (ref)	1.00	1.00
Yes	0.44 (0.19–1.00)*	0.43 (0.18–1.03)
Area of residence		
Rural (ref)	1.00	1.00
Urban	0.62 (0.37–1.04)	0.62 (0.35–1.09)
Religion		
Christian (ref)	1.00	na
Muslim	11.08 (4.79–25.66)**	na
Wealth quintile		
1 (poorest) (ref)	1.00	1.00
2	1.34 (0.59–3.02)	1.65 (0.70–3.90)
3	2.01 (0.86–4.68)	2.02 (0.82–4.95)
4	1.10 (0.46–2.63)	1.19 (0.47–3.02)
5 (wealthiest)	2.35 (1.01–5.47)*	2.90 (1.15–7.34)*
No. of daughters	1.04 (0.76–1.41)	0.96 (0.70–1.32)
Constant	*0.006 (0.000–0.086)***	*0.077 (0.006–1.076)*

*p<.05. **p<.01. *Notes:* Analysis omits two women for whom information on wealth status was unavailable. ref=reference category. na=not applicable.

FIGURE 1. Percentages of respondents (with 95% confidence intervals) who had been circumcised and who reported their circumcision intention for their oldest daughter, by religious affiliation



requires. Dayas were in the past.... No one circumcises their daughter at the daya anymore, because medicine has progressed."—*Urban woman with daughters aged four and seven*

Like the respondent quoted above, many described the turn to doctors for FGC as being a result of "progress" and greater "awareness" among both the population and medical providers. Respondents' common association of excessive bleeding and possible death with poorly performed circumcisions, particularly those done by traditional practitioners, appeared to come from a combination of personal anecdotes and stories heard about girls who had bled after the procedure.

For Uncertain Mothers, Doctors Are a Source of Information

For each daughter, respondents were asked the two main reasons for their intention to circumcise, not circumcise or consult a doctor. Those who had circumcised or intended to circumcise their daughters most frequently cited tradition and religion as the main reasons for their decision (44%). The most common reason that Muslim mothers cited for not intending to circumcise was that it was "the right thing to do" (30%); an additional 21% noted the potential dangers of circumcision, corresponding with the perception that the procedure has immediate health risks. While Christian mothers who did not intend to circumcise also frequently said that not circumcising was the right thing to do (29%), many mentioned religion as a reason for refraining from the practice (25%), a finding that suggests that norms differ across religions. Respondents who intended to consult a doctor regarding FGC differed from those with firm stated intentions in that their most commonly cited reason was that they were not sure whether their daughters should be circumcised (56%). However, women in the consultation group, too, frequently described their approach as being the right thing to do (20%), again indicating that views of normative practice vary in the study population.

In the quantitative survey, women who intended to seek a doctor's opinion were asked to explain why. Only 3% said they would consult a doctor because circumcision could be dangerous; instead, the vast majority said they would do so because they did not know if girls should be circumcised (64%) or because circumcision might be medically recommended for their daughter (28%). Thus, while harm reduction was the main reason for circumcising at the doctor, it was not the main reason that women consulted the doctor. Rather, the results suggest that mothers who intended to consult were seeking guidance.

The qualitative interviews likewise suggested that respondents who said they would consult a doctor were seeking an authoritative opinion. Among these mothers, two main perspectives—which were related to the mother's own prior intentions—were evident. First, some mothers were inclined to circumcise, but were uncertain of the potential consequences and wanted a doctor to tell them whether circumcision "would be okay" for their daughters:

Interviewer (I): Do you intend to circumcise your daughter, God willing?

Respondent (R): God willing, I will take her to the doctor first to examine her, [to see] if it's okay or not okay [to circumcise her]—he's the one who will tell me."—*Urban woman with daughters aged nine and six*

"I spoke with [my daughter's] father. I told him that I will go to have her examined first, because I heard that these things [khitan] are forbidden, and the one that they catch doing it will be punished. So I felt that this is something wrong. I said I will ask the doctor whether this can be done, and if not, then I'll leave her [uncircumcised]."—*Rural woman with daughters aged 13, seven and three*

The second perspective was espoused by mothers who, like those in the quantitative sample who thought circumcision might be medically recommended, wanted their daughters examined by a doctor to determine whether she "needed" to be circumcised:

I: Have you decided whether to circumcise your daughters?

R: It depends [on what the doctor thinks] at the time. When they're around 10 years old I'll take them to the doctor to be examined. If he finds a reason to do it, okay. If there isn't a reason, that's it.—*Urban woman with daughters aged six and four*

I: Do you intend to circumcise your daughter, God willing?

R: If the doctor says that she needs it.

I: Why do you think the doctor's decision [might make you decide to not] circumcise your daughter?

R: I imagine that [the doctor] knows more than us. She knows if [my daughter] needs or doesn't need [to be circumcised].—*Urban woman with daughter aged four*

These mothers did not have strong prior inclinations about whether daughters should undergo FGC, and seemed to genuinely want a medical opinion that could guide their decision. The desire for a medical consultation was related to the perception that some girls need to be cut and others do not, and that a medical professional has to determine which is appropriate. In contrast, some mothers rejected the idea of consulting a doctor precisely because their intentions were already firm. As one urban respondent who did not intend to circumcise her daughter said, "I won't consult [a doctor]. I have already decided, so why would I go to a doctor?"

Content of Medical Consultations

Mothers who did consult a doctor reported that determining whether a girl "needed" circumcision was central in their interactions with doctors. Respondents who had already consulted a doctor said that the physician performed an "exam" on the girl to determine whether to circumcise.

I: Okay, so when you went to the doctor, the one from the public health center, can you tell me what happened exactly?

R: Nothing, really. I said, "Doctor, I want to circumcise my daughter."... And she said, "Okay, I'll see first if she needs to be circumcised or not."... So she examined [my daughter] and told me, "She doesn't need it."

I: How did she examine her?

R: She took off the pants.... She opened [the girl's] legs, and looked, and said ... "There isn't anything that needs to be circumcised."—*Urban woman with daughters aged 13, 11 and seven*

Although she followed the doctor's advice and did not have the daughter in question circumcised, this mother intended to bring her younger daughters to be examined when they were older. A small number of other women reported that they or their relatives were told by a doctor that their daughter should be circumcised, and they had had it done. For example, one women reported:

"We took my niece to the pediatrician and said, 'We want to see if she needs to be circumcised or not.' Of course, he examined her, and he said, 'Yes, she needs to [have it done].'... He said to us that if we want [to do it] now, it's no problem. So I told him, 'Okay, do it.'"—*Urban woman with daughter aged 10*

A respondent at the rural study site recounted having brought her nine-year-old daughter to a private doctor the previous week. The doctor examined the girl and said that she needed to be circumcised, but that he would not perform the procedure because it was illegal. The respondent resolved to go to another doctor to have the girl circumcised, but had not done so yet.

In addition, one participant said that a doctor had told her that the decision to circumcise was up to her, and a few others were told to come back to have their daughters examined again when they were older:

"The [doctor] told me, 'It won't make a difference—if you want to circumcise her, you can; if you don't want to, it's okay, [you can do] as you like.'"—*Urban woman with daughters aged 12 and nine*

"[My relative and I], we took the girls to be examined at the doctor together.... [The doctor] said, 'This [girl] still has to wait a year, and the other one too.'... She said, 'In a year, have them examined again.'"–*Rural woman with daughters aged 13, seven and three*

Thus, while a visual exam appeared to be standard practice among the doctors consulted by the respondents, the doctors' recommendations varied considerably.

Trust in the Doctor

The doctors whom respondents intended to consult were not described as specialists in FGC or as being known to perform the procedure. Rather, most respondents planned to consult their family practitioner or gynecologist, a doctor they knew from the local health center, or one who had seen them during pregnancy or delivery. Prior positive experience—whether their own or that of friends or relatives—was often mentioned as a reason for selecting, and trusting, a particular practitioner. Respondents who had not known a doctor had asked their networks for recommendations.

R: All my siblings' [daughters], they [were taken] to the doctor, and there were some he circumcised and some not.

I: Do you trust this doctor?

R: Yes, he's a good doctor and we know him.—*Rural woman with daughter aged five*

Respondents' reliance on personal contacts for recommendations highlights the extent to which consulting a doctor about FGC was seen as a usual practice among members of their social networks.

Moreover, the experiences of their networks, and particularly their extended family, not only yielded recommendations for doctors to consult, but also reinforced respondents' views that doctors' recommendations were medically valid. Respondents considered the fact that a doctor did not give the same recommendation for all girls as a reason for trusting him or her, and as evidence that decisions were being made on an individual basis:

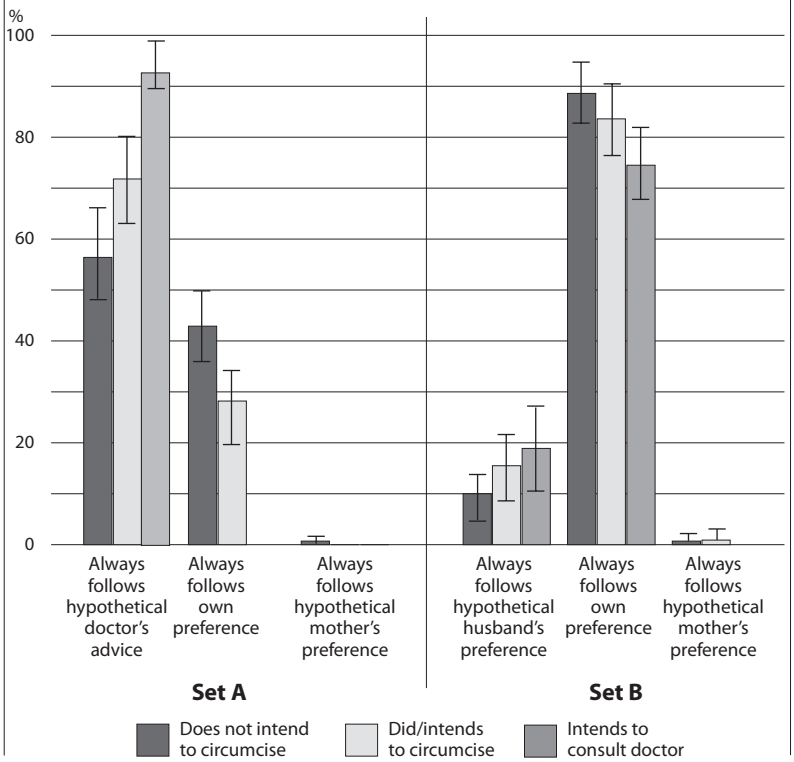
"The doctor knows what he's doing. He won't do something wrong. If he sees that the girl doesn't need it, he won't circumcise her, he'll just beautify and that's it."— *Urban woman with daughter aged seven*

Responses to Vignettes

When presented with the vignettes about the hypothetical mother's FGC decisions, respondents almost always offered recommendations that consistently mirrored either their own preferences or the preferences of the hypothetical future husband or recommendations of the doctor. Yet regardless of their own circumcision intentions, respondents advised the mother to follow the doctor's advice more often than they advised her to accommodate the future husband's likely preferences. For example, 56% of mothers who did not intend to circumcise their own daughters always advised the hypothetical mother to follow the doctor's recommendation, whereas only 10% always advised her to do what the future husband would likely prefer (Figure 2). Adherence to the doctor's recommendation was even higher among respondents who had circumcised or intended to circumcise their daughter (72%). However, the proportion of women who recommended following the doctor's advice was highest (94%) among women who intended to consult a doctor themselves (comparisons with other groups were significant at $p<.05$), suggesting that mothers who planned to seek a doctor's opinion were the most mutable in terms of their circumcision intentions.

In the in-depth interviews, respondents who intended to consult a doctor expressed a range of opinions regarding what they would do if the doctor's FGC recommendation conflicted with their own inclinations. Some respondents said that they would follow the doctor's advice no

FIGURE 2. Percentage of respondents (with 95% confidence intervals) whose recommendations to mothers in vignettes always followed their own preference or the preferences and recommendations of the hypothetical mother, doctor or future husband, by respondent's circumcision intentions for her own daughters



matter what; for example, one urban respondent, whose inclination was to not circumcise her six-year-old daughter, explained that "the word of medicine is what will go." Similarly, a rural respondent who was advised by the doctor not to circumcise her 12-year-old daughter followed this advice, despite her prior intention to circumcise. However, not all respondents said that they would definitely follow their doctor's recommendation; a few said that they would seek a second opinion from another doctor if the advice they received was counter to their inclination.

I: If the doctor said that your daughter needs to be circumcised, what would you do?

R: I'll see someone, another doctor, and I'll tell her [that the first doctor] said this. [I'll say,] 'Is that the best thing? Or what's the best thing?'—*Urban woman with daughter aged one*

Other Family Members' Involvement in the Decision

In some contexts, family members and social networks may influence mothers' decisions about FGC.[23] We therefore asked women which family members' opinions on circumcision mattered to them. Respondents reported that the opinions of their mothers and husbands were most influential; 56% said that their husband's opinion mattered, 32% said that their mother's opinion mattered and 13% named both their mother and their husband. Women were also asked how likely they would be to stick to their own decision about a daughter's circumcision if someone in their family opposed the choice. The large majority of respondents (88%) said that they were likely or very likely to stand by their decision.

In in-depth interviews, mothers likewise indicated that the decision on whether to circumcise their daughters was ultimately their own. Many said their discussions with their husband about the issue consisted of their informing him about their intentions, rather than seeking his input. Although a few said that they might need to convince their husband to agree with or approve their plans, others said that their husband "leaves [the decision] to me." Some respondents had also discussed FGC with their female relatives, and the diversity of opinion had led some of them to decide to consult a doctor. In contrast, several of those who had firmer intentions said that they would not consult any relatives; one mother who intended to discuss the matter with a doctor said she would not consult her family because "this is my daughter's life. Am I going to let everyone participate in decisions about the future of my daughter?"

Knowledge of the Ban on FGC

Mothers who consult a doctor may do so to obfuscate responsibility for the decision to circumcise their daughters, either because they do not want to admit to supporting a controversial practice or because they know that FGC is illegal. Although a few respondents in the qualitative interviews said they had heard that circumcision was banned, only 27% of survey respondents reported that the practice was illegal in Egypt (not shown). In a multivariate regression analysis (Table 4), women had an elevated likelihood of knowing that FGC is illegal if they worked for pay (odds ratio, 1.6), if they were Muslim (3.3) or if their household income was in the wealthiest quintile rather than in the poorest (2.1). Although these findings suggest that information about the illegality of FGC has not reached all groups equally, it may be that some women do not want to admit knowing of the ban. For example, the number of daughters that a mother had was negatively associated with reporting that FGC is illegal (0.9); women with a greater number of daughters may have already circumcised at least one of them and therefore have been more reluctant than other women to admit that they knew the practice is banned.

DISCUSSION

Understanding interactions between mothers and medical professionals is central to the debate about whether the medicalization of FGC should be viewed as a harm reduction strategy or as a trend that will delay abandonment of the practice.[3] Although the dynamics and cultural meanings around medicalization differ across the diverse contexts in which FGC is practiced,[24] the results of this study pose some important questions for the debate.

Our results document heterogeneity in mothers' perceptions of doctors' roles in FGC. We first confirm that, as has been hypothesized,[11] mothers who want their daughters to undergo FGC are turning to medical professionals

TABLE 4. Odds ratios (and 95% confidence intervals) from logistic regression analyses assessing associations between respondents' characteristics and their knowing that FGC is illegal

Characteristic	Odds ratio
Age	1.04 (0.96–1.13)
Education	
Illiterate (ref)	1.00
Primary/literate	1.59 (0.55–4.64)
Preparatory/incomplete secondary	1.74 (0.26–11.65)
Complete secondary	1.29 (0.39–4.28)
>Secondary	2.03 (0.82–5.07)
Employed	
No (ref)	1.00
Yes	1.59 (1.27–1.99)**
Area of residence	
Rural (ref)	1.00
Urban	0.93 (0.70–1.23)
Religion	
Muslim	3.34 (1.88–5.95)**
Christian (ref)	1.00
Wealth quintile	
1 (poorest) (ref)	1.00
2	0.91 (0.37–2.23)
3	0.99 (0.64–1.51)
4	0.90 (0.46–1.76)
5 (wealthiest)	2.11 (1.69–2.64)**
No. of daughters	0.87 (0.77–1.00)*
Constant	*0.040 (0.002–0.773)**

*p<.05. **p<.01. *Notes:* Analysis excluded 54 women who answered "don't know" to the question regarding the legality of female genital cutting or refused to answer. FGC=female genital cutting. ref=reference category.

because they see this as a means of harm reduction, which in this context typically means mitigating the risk of FGC's potential acute adverse effects, particularly hemorrhage. Most likely at least some of the association between poorly performed FGC (largely understood to mean procedures performed by traditional practitioners) and the possibility that the girl could "hemorrhage and die"—a phrase respondents used consistently—is related to media messages. Early FGC campaigns in Egypt focused on medical harm and medicalization, and the media has covered deaths from FGC;[12] the 2014 DHS found that 77% of women who reported having received information about FGC in the past year said that the information came from the media.[5]

At the same time, our results suggest that many young mothers are confused about the potential harms and benefits of FGC, and are therefore seeking a medical opinion at least in part to help them decide whether to submit their daughters to the practice. This finding corresponds with the trend, seen in the DHS, that a growing proportion of women report that they do not know whether they will have their daughters cut,[5] as well as with the results of a small qualitative study that found that parents are increasingly uncertain about the practice.[25] Our results indicate that while mothers see themselves as the primary decision makers regarding FGC, some are exposed to a range of opinions about the practice within their social networks. This variation in opinion appears to be particularly salient for women who are unsure about whether their daughters should undergo FGC. In turn, mothers' uncertainty about the benefits and harms of FGC appears to be an important factor driving the demand for medical consultations. Some women consulted a doctor mostly to validate their own opinions about circumcision, whereas others were more uncertain and were seeking an authoritative opinion.

How mothers' uncertainty is addressed by the doctors they consult appears to vary substantially. Although some women said their doctors were opposed to FGC, a few were advised to have the procedure performed on their daughters. Others reported being told to have their daughter examined again in the future; in these cases, while not recommending FGC outright, doctors did not tell women that the procedure has no medical benefit. All respondents who had a consultation reported that doctors' basis for making their recommendations was a physical exam, which was seen, along with variation in recommendations, as a sign of legitimacy and suggests that some practitioners may be making judgment calls based on their examination, as opposed to blanket recommendations. Doctors' recommending—or at least not discouraging—the practice is consistent with concerns that medicalization could lead clinicians to have a stake in not seeing FGC abandoned.[3] At the same time, our findings agree with those of a study that found that some Egyptian doctors based decisions regarding whether FGC is "needed" at least in part on whether the clitoris is deemed large or engorged.[18] Understanding doctors' motivations for performing FGC and the reasoning behind the information and advice they provide to mothers is therefore an important subject for future research.

The lack of complementary data from doctors is a main limitation of this study, because our respondents' reports of their interactions with clinicians cannot be verified. Because it is illegal in Egypt, FGC is a sensitive topic to discuss with doctors and one that is likely subject to considerable response bias. Although interviewing doctors was beyond the scope of this study, it is a key area for further research and is critical for understanding the implications of medicalization in Egypt, as well as in countries where medicalization is increasing but not yet common. Another limitation of our study was our use of marriageability as a comparison construct in our vignettes. From previous research, we hypothesized that marriageability was the central factor in the perpetuation of FGC.[4] However, the results of this study and findings from a recent national survey[9] suggest that social custom is a more relevant driver of FGC practices than are direct concerns about marriageability. Other limitations of the study are that our selection of participants was nonrandom and limited to a small geographic area; studies that use larger and more representative samples, and that offer respondents the option to report that they will consult a medical professional about FGC, are needed to identify variation in the role of these

professionals in the practice of, and decisions about, FGC. Finally, the mothers we spoke to had daughters of varying ages, and thus were in different stages of their thinking about FGC. Particularly given the evidence that Egyptian women face a growing degree of uncertainty over whether FGC should continue, it is possible that some will change their minds by the time their daughters reach the age of FGC.

Nevertheless, this exploratory study provides an example of how growing variation in perceptions about and practice of FGC within a population may lead uncertain families to seek new sources of information about the practice. Our results also raise concerns about the ban on FGC and its interaction with medicalization. Others have noted that bans on FGC are likely to be ineffective in the absence of social change,[2,3] and this appears to be the case in our study area. In the face of continued demand for FGC, criminalization clearly has not been sufficient to prevent doctors from performing the procedure, or perhaps even from recommending it to mothers. Research on Egyptian doctors' knowledge of and practices related to FGC is therefore critical to efforts to eliminate the practice.

CONCLUSION

The ban on FGC is unlikely to be effective in the absence of broader social change. Given the rapid medicalization of FGC, understanding why mothers consult and employ medical professionals, and the implications of this trend for harm reduction and abandonment, is of growing importance. The findings of this study suggest, on the one hand, that some mothers are turning to doctors to perform FGC as a means of harm reduction. On the other hand, mothers also are turning to doctors for advice on whether their daughters should undergo the procedure—and are not always hearing a "no" in response. That some medical professionals are recommending, or at least not discouraging, the practice of FGC is cause for concern and has implications for efforts to eradicate the procedure. However, the high degree of trust that respondents had for doctors' opinions suggests that if doctors were to consistently advise families not to perform FGC on their daughters, they could be a persuasive constituency in the anti-FGC campaign.

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RESUMEN

Contexto: *Aunque la mutilación genital femenina (MGF) es ilegal en Egipto y las tasas están disminuyendo, la medicalización de la práctica ha aumentado. Sin embargo, es poco lo que se sabe acerca de las razones por las cuales algunas madres prefieren que la MGF sea practicada por profesionales médicos o el grado en el que tales profesionales pueden influir en las decisiones relativas a esa práctica.*

Métodos: *Los datos recolectados en 2014 a partir de una encuesta aplicada a 410 mujeres con hijas jóvenes, así como de entrevistas en profundidad con 29 de esas mujeres, se utilizaron para examinar el rol que juegan las consultas con profesionales médicos en las decisiones de las madres concernientes a la MGF. Se preguntó a las mujeres sobre sus experiencias, percepciones, conocimientos e intenciones relacionadas con la MGF y sus interacciones con el personal médico. Se usó un enfoque de código abierto para analizar los datos cualitativos, al mismo tiempo que se usó regresión multivariada para identificar correlatos entre la intención de consultar a un médico y el conocimiento de que la MGF es ilegal.*

Resultados: *Los profesionales médicos fueron los principales proveedores de MGF a las participantes del estudio. Las madres quisieron que la MGF fuera practicada por médicos para mitigar los riesgos percibidos del procedimiento. Alrededor de un tercio de las madres planearon consultar a un médico para decidir si someter o no a sus hijas a la ablación. Las mujeres reportaron que los médicos realizaron exámenes físicos y, subsiguientemente, recomendaron o bien que las hijas fueran mutiladas, que no lo fueran, o que volvieran a examinarse en el futuro. La mayoría de las personas entrevistadas expresaron altos niveles de confianza en los médicos.*

Conclusión: *Dado que las madres parecen valorar sus opiniones, los médicos podrían contribuir al abandono de la MGF si, de manera consistente, hicieran recomendaciones en contra de esta práctica. Es poco probable que la prohibición de la MGF sea efectiva en ausencia de un cambio social más amplio.*

RÉSUMÉ

Contexte: *Bien la mutilation génitale féminine (MGF) soit illégale en Égypte et malgré des taux en baisse, la médicalisation de la pratique est, elle, en hausse. Les raisons pour lesquelles certaines mères préfèrent confier les interventions de MGF à des professionnels de la santé et la mesure dans laquelle ces professionnels peuvent influencer les décisions relatives à la pratique ne sont cependant guère documentées.*

Méthodes: *Les données collectées en 2014 sur la base d'une enquête auprès de 410 femmes mères de fillettes et d'entretiens en profondeur avec 29 de ces femmes ont permis d'examiner le rôle des consultations avec des professionnels de la santé dans les décisions maternelles relatives à la MGF. Les femmes ont été interrogées sur leur expérience, leurs perceptions, leur connaissance et leurs intentions concernant la MGF, ainsi que sur leurs échanges avec un personnel médical. Une approche de codage ouvert a été adoptée pour l'analyse des données qualitatives, tandis que la régression multivariée servait à identifier les corrélats d'intention de consultation d'un médecin et de connaissance du statut illégal de la MGF.*

Résultats: *Les professionnels de la santé se sont avérés les principaux prestataires de la MGF aux participantes à l'étude. Les mères voulaient obtenir la procédure d'un médecin afin d'en limiter les risques perçus. Environ un tiers des mères entendaient consulter un médecin concernant leur décision de soumettre ou non leurs filles à l'intervention. Les femmes déclarent que les médecins effectuent un examen physique et recommandent ensuite l'excision des filles, la non excision ou un nouvel examen dans le futur. La plupart des répondantes expriment faire largement confiance aux médecins.*

Conclusion: *Étant donné que les femmes semblent valoriser leurs opinions, les médecins pourraient contribuer à l'abandon de la MGF s'ils se prononçaient systématiquement à son encontre. L'interdiction de la MGF restera vraisemblablement peu efficace en l'absence d'un changement social plus large.*

Acknowledgments

Data collection was funded by a seed grant from the Global Underdevelopment Action Fund at the Freedman Spogli Institute at Stanford University. The funder had no role in the design or execution of the study, or in interpretation of the data.

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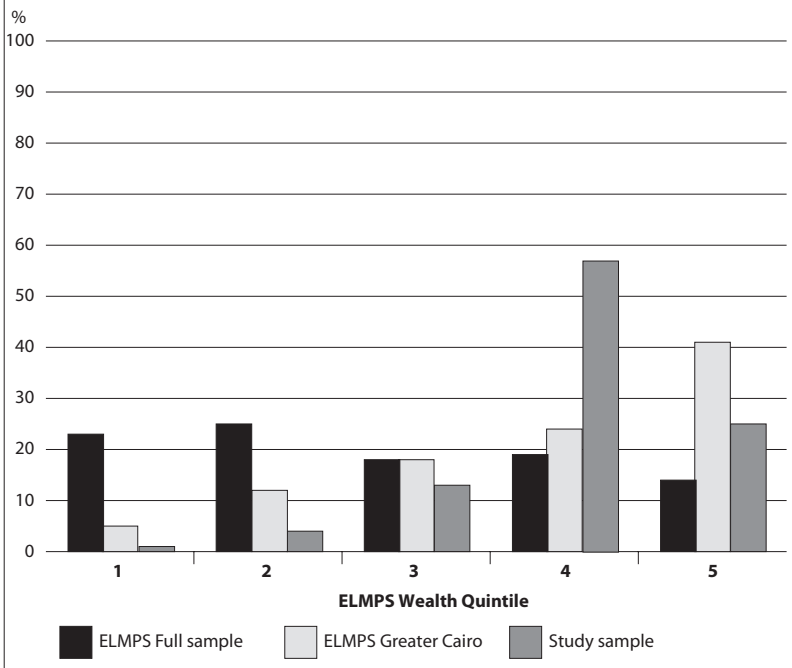
APPENDIX FIGURE 1. Comparison of respondents' household wealth with that of households in the nationally representative 2012 Egypt Labor Market Panel Survey



Note: ELMPS=Egypt Labor Market Panel Survey