

Mother, daughter, doctor: Medical professionals and mothers' decision-making about Female Genital Mutilation/Cutting in Egypt

Sepideh Modrek¹ and Maia Sieverding^{2*}

¹General Medical Disciplines
School of Medicine
Stanford University
1265 Welch Road
Stanford, CA 94305
smodrek@stanford.edu

² Global Health Sciences
University of California San Francisco
550 16th Street, 3rd Floor
San Francisco, CA, 94158
SieverdingM@globalhealth.ucsf.edu
Tel: +1-415-476-5595
Fax: +1-415-476-5348

*The authors contributed equally to this paper.

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Abstract

Declining rates of Female Genital Mutilation/Cutting (FGM/C) have been associated with the increasing medicalization of the practice in several countries. However, little is known about the degree to which medical professionals are simply responding to demand for FGM/C, or may be slowing abandonment. We draw on a mixed-methods study of FGM/C practice in Egypt, the country in which medicalization has been most extensive, to examine the role of consultations between mothers and medical professionals in the perpetuation of the practice. Data are drawn from a survey of 410 mothers of young daughters in two sites on the outskirts of Cairo that addressed decision-making regarding the FGM/C of their daughters. Follow-up in-depth interviews were conducted with 29 of the respondents, focusing on the content of their consultations with medical professionals regarding FGM/C. Medical professionals, primarily doctors, were the main source of FGM/C among the study sample. In addition, 37% of Muslim respondents indicated that they intended to seek a doctor's opinion in deciding whether or not to perform FGM/C on their daughter. Demand for this consultation was created by uncertainty over the harms of FGM/C, as well as the perception that the practice is medically recommended for some girls. Respondents reported doctors conducting a physical examination of the daughter and subsequently recommending to cut, not to cut, or to wait and re-examine at an older age. The majority of respondents expressed high levels of trust in doctors, suggesting substantial accord between the doctor's recommendation and actual FGM/C practice. These findings indicate that greater sensitization of medical professionals, not only legalization, is necessary in order to further reduce the prevalence of FGM/C. Doctors could be a force for abandonment if mothers value their opinions regarding FGM/C, but only if doctors consistently recommend against the practice.

Introduction

The practice of Female Genital Mutilation/Cutting (FGM/C) has been the focus of a concerted international eradication effort since the 1970s and 1980s (Shell-Duncan, 2008; UNICEF, 2013). Many early campaigns against FGM/C focused on the adverse health consequences of the practice, an approach that has fallen out of favor in part because it is believed by some advocates to have contributed to the “medicalization” of FGM/C (Shell-Duncan, 2008). Medicalization, which may encompass a variety of medical interventions into how FGM/C is practiced but in this analysis is understood as the performance of FGM/C by trained medical personnel, has been the subject of substantial debate within the anti-FGM/C movement (Shell-Duncan, 2001). Central to that debate has been the question of whether medicalization is a viable harm reduction strategy in contexts where abandonment may be a long way off, or whether medicalization legitimizes and ultimately perpetuates a harmful practice (see Shell-Duncan, 2001 for a review).

Although the medicalization of FGM/C has been well noted in the literature, less is known about the dynamics of medical professionals’ interactions with families around the practice, a factor that is key to the debates over whether medicalization may play a role in delaying abandonment. In particular, few studies have examined the degree to which medical professionals are simply responding to patient demand, or are actively playing a role in perpetuating FGM/C, for example based on support for the practice or profit motive, although the importance of this question has been noted (Caldwell, Orubuloye, & Caldwell, 2000; Christoffersen-Deb, 2005; Shell-Duncan, 2001). In this paper, we draw on a mixed-methods study of mothers’ decisions about FGM/C in Egypt, which is both a high prevalence country and the country in which medicalization is most extensive (UNICEF, 2013), to examine the role of consultations with medical professionals in the perpetuation of the practice.

The medicalization of FGM/C in Egypt

FGM/C is defined by the WHO as “all procedures involving partial or total removal of the external female genitalia or other injury to the female genital organs for non-medical reasons” (WHO, 2008). Traditionally, FGM/C in Egypt was performed primarily by *dayas* (traditional birth attendants), and sometimes by barbers or other laypersons (El Zanaty, Hussein, Shawky, Way, & Kishor, 1996). However, Egypt has seen two notable trends the practice of FGM/C over the past two decades. First, although FGM/C remains nearly universal at the national level, with 95% of ever-married women aged 15 – 49 reporting that they had been cut as of 2008 (UNICEF, 2013), prevalence has started to decline among younger cohorts. Nationally representative data from 2009 show that whereas 90% of women aged 25 – 29 had undergone FGM/C, this dropped to 79% of women aged 15 – 17 (Population Council, 2010). At the same time, medicalization of the practice has been rapid; whereas 18% of respondents in the Egypt Demographic and Health Survey (EDHS) 1995 reported having undergone FGM/C by a medical professional, 55% of their daughters had (El Zanaty et al., 1996). By the 2008 EDHS, 77% of daughters had undergone FGM/C by a medical professional (El Zanaty & Way, 2009). Egypt is also the only country in which medicalized FGM/C is primarily performed by doctors, as opposed to nurses, trained midwives, or other trained health workers (UNICEF, 2013).

Although medicalization of FGM/C has been well noted in Egypt, research detailing the motivations and beliefs of health professionals around the practice has been fairly limited. One national survey of physicians found that 19% reported carrying out the practice; half of these were convinced of the benefits, 30% were motivated by profit, and 19% cited harm reduction so that parents would not turn to a *daya* (Refaat, 2009). Support for the practice among medical professionals (Rasheed, Abd-Ellah, & Yousef, 2011) and medical students (Mostafa, El Zeiny, Tayel, & Moubarak, 2006) has been found to be high in local studies. Meanwhile, parents' motivations for turning to medical professionals to perform female circumcision are hypothesized to be related to the desire to reduce potential negative health consequences (El-Gibaly, Ibrahim, Mensch, & Clark, 2002; UNICEF, 2013), yet we are unaware of any studies in Egypt that have directly asked mothers or other family members about their interactions with medical professionals around FGM/C.

Medicalization and the ban on female circumcision

There has been an active anti-FGM/C campaign in Egypt dating back to the late 1970s (Modrek & Liu, 2013), but pressure on the issue grew after the 1994 International Conference on Population and Development (El-Gibaly et al., 2002). For a brief period during the mid-1990s, the Ministry of Health established a policy that allowed FGM/C to be performed in certain health facilities under the idea that medicalization would reduce harm from the practice and crowd out traditional practitioners (El-Gibaly et al., 2002; Yount, 2004). After this policy was met with opposition from anti-FGM/C activists (El-Gibaly et al., 2002; Shell-Duncan, 2001), a 1997 law banned the practice, but allowed for it in "medically necessary" cases. FGM/C was not fully banned until 2007, a measure prompted by the death of an 11-year-old girl from the procedure (Modrek & Liu, 2013). However, enforcement of the ban is generally considered to be weak. It was only in 2013 that the first case against a doctor who performed FGM/C on a girl who subsequently died went to trial, initially resulting in an acquittal (Kingsley, 2014). In January 2015, an appeals court sentenced the doctor to two years for the girl's death and an additional three months for performing FGM/C, and closed his clinic for a year. Her father was given a suspended sentence for submitting her to the practice (Khaleefa, 2015; Thomas, 2015).

Methods

Sample design

The research team identified one urban and one rural area on the outskirts of the Greater Cairo Metropolitan Area, in the governorate of Qalyubeyya. The urban area was a neighborhood in one of the dense informal settlements that house nearly 38% of Egypt's urban population (CAPMAS, 2008). The rural area was a set of villages located about 15 kilometers from the urban settlement. In each area, all Central Agency for Public Mobilization and Statistics (CAPMAS) Primary Sampling Units (PSUs) were mapped and four were selected for inclusion in the study. We used a neighborhood saturation sampling strategy, in which the survey team canvassed selected PSUs and enrolled eligible and willing women into the study.

The eligibility criteria were that a woman be (1) a mother of at least one daughter, (2) currently married, and (3) aged 25-36 at the time of the survey. Only one eligible woman was interviewed

per dwelling unit, and in buildings occupied by an extended family a maximum of two respondents from different dwelling units were included. We chose religiously mixed areas for the study and intentionally oversampled Christians in the quantitative survey based on previous literature indicating that the rate of FGM/C among Christians has fallen more rapidly than among the majority Muslim population (UNICEF, 2013; Yount, 2004), allowing for a comparison of social and institutional influences on change in circumcision practice.

Data collection

Data collection was conducted in January and February 2014. We enrolled 410 mothers into the quantitative survey, 269 in the urban site and 141 in the rural site. All respondents were administered a questionnaire that covered her FGM/C experience, intentions and decision-making regarding the FGM/C of her daughters, social networks, media and other influences related to FGM/C, and any interactions with medical personnel related to FGM/C. The survey also collected detailed socio-demographic information on the mother, daughters, and other household members. Survey interviews took approximately an hour to complete. At the end of the quantitative survey, all respondents were invited to participate in a follow-up in-depth interview (IDI) to be conducted within a week. Sixty-six women agreed to participate in the qualitative follow-up, of whom we selected 29 whose daughters were closer to the typical age of FGM/C in the study areas (around age 10 or 11). We did not oversample Christian women in the qualitative follow up, as this population's more rapid abandonment of FGM/C meant that questions related to medicalization were less relevant.

The follow-up IDI consisted of open-ended questions regarding the respondent's views on the pros and cons of FGM/C and the decision-making process about the FGM/C of her daughters, including reasons for turning to medical or other types of practitioners to perform FGM/C. Interviews also covered the dynamics between mothers and medical professionals regarding FGM/C, including how mothers selected the doctors or other medical personnel that they consult, the content of their interactions with these professionals, and their trust in medical providers with regards to decisions about FGM/C. The follow-up interviews typically lasted 45 minutes. Approval for the study was obtained from the Stanford University Institutional Review Board and CAPMAS. Informed consent was obtained from all respondents prior to their participation in the study.

Quantitative measures

The quantitative survey module on FGM/C included standard questions from the EDHS and other national surveys, such as whether the respondent has undergone FGM/C, at what age, and who performed the FGM/C. However, based on the results of the survey pretest, we expanded on the answer choices for standard questions regarding respondents' FGM/C intentions for their daughters by allowing respondents to reply "It depends on the opinion of the doctor." We asked respondents the main reasons for their FGM/C intentions for each daughter in an open-ended format, as well as (expected) age at FGM/C, practitioner type, and payment amount for each daughter they had or intended to perform FGM/C on. We also asked respondents whether female FGM/C is banned in Egypt.

In order to probe the influence of different actors' preferences regarding FGM/C, we asked

respondents a set of vignettes regarding what a hypothetical mother should do if her FGM/C preferences were opposite to the recommendation of a doctor or preferences of a future husband, respectively (Table 1). The comparison with the husband was chosen because marriageability has been argued to be a reason for the perpetuation of FGM/C (Caldwell et al., 2000; Mackie, 1996). In our analysis, we are interested in whether the respondent's advice to the hypothetical mother reflects (1) the respondent's own preferences ("Yes" to both questions, or "No" to both); (2) the future husband's preferences or doctor's recommendation ("Yes" then "No"); or (3) the hypothetical mother's preferences ("No" then "Yes"). We omit the group of mothers whose responses indicated inconsistent preferences and those who respond "don't know" from the analysis.

Analysis

We adopted a mixed-methods approach to the analysis, and present the findings by themes in order to integrate the quantitative and qualitative data. All quantitative analysis was performed using STATA 13. We first report respondent, household and daughter characteristics for the full survey sample and the sub-sample of IDI respondents. We then descriptively analyze the data on respondents' FGM/C intentions, medicalization of the practice, preferences, and cost of FGM/C. We focus these results on the respondent's eldest daughter, who was closest to the typical age of FGM/C, or who would have already undergone the practice, at the time of the survey. We model the likelihood of a respondent knowing that female circumcision is banned in Egypt using logistic regression, controlling for age, number of daughters, employment, education, wealth, religion, and survey site. Wealth quintiles were calculated using principal component analysis of a household asset index based on the Egypt Labor Market Panel Survey (ELMPS).

The IDIs 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, with codes and sub-codes derived from the data rather than determined a priori. For example, reasons for having a doctor perform FGM/C was divided into two code families: reasons for performing FGM/C at the doctor and reasons for consulting a doctor about FGM/C. One sub-code for the former topic was related to the doctor's training, which during the coding process was divided into "general training/knowledge" and "knowledge of size to cut." Additional code families we discuss include the content of consultations with doctors, how to find a doctor for FGM/C, trust in doctors, and decisions when the doctor's recommendation was contrary to the mother's intention. Throughout the presentation of the study results, we use the term "female circumcision," the most direct translation of a widely used local term (*khitan*) for the practice (El-Gibaly et al., 2002) rather than FGM/C in order to more accurately reflect the data.

Results

Sample characteristics

Respondents were on average 31 years old at the time of the survey and 20 years old when they first married, to men who were on average 5.5 years older (Table 2). The majority (59%) had completed at least secondary education, although a substantial portion of the sample also had

very little education, with 32% having completed primary school or less. Only 15% of the respondents were employed for pay. Ninety-two percent of the respondents were themselves circumcised, on average around age 9 or 10.

Per the sample design, 66% of the respondents' households were located in the urban area and the remaining 34% in the rural site, and 68% percent of the households were Muslim. The wealth quintiles presented in the table are those internal to the sample; comparing our sample against a nationally representative sample from the 2012 ELMPS indicates that the households in our sample were wealthier than the national population. However, overall they were poorer than residents of the Greater Cairo Metropolitan Area (Appendix 1). Respondents' households had on average 2.6 children (range 1–5), of whom 1.6 were daughters (range 1–5). The daughters were on average 6.8 years old (range 0–19), with the oldest daughter 7.8 years old (range 0–19) and the youngest 5.5 years (range 0–16). Mothers reported that they did or intended to circumcise their daughters around age 10 or 11. Therefore, in most cases, we captured intentions 3–5 years before mothers expected to circumcise their daughters.

Respondents selected for an IDI were significantly different from the overall sample in terms of religion, were slightly less educated, and had more daughters (Table 2). However, the educational differences are a reflection of the religious composition of the two groups, in that the Christian respondents were on average somewhat more educated. When comparing the IDI sample only to the Muslim respondents in the full sample there was no significant difference in educational attainment or number of daughters.

Circumcision intentions and medicalization of the practice

As shown in Figure 1, 83% of Christian respondents were circumcised compared to 96% of Muslim respondents ($p<0.001$). Christian respondents' intentions regarding the circumcision of their daughters also indicate that this population has largely abandoned the practice, with 89% saying that they will not circumcise their eldest daughter. In contrast, Muslim respondents' intentions suggest a diversity of opinion regarding circumcision. Twenty-one percent of Muslim respondents stated definitely that they did not plan to circumcise their eldest daughter, whereas a total of 41% intended to (27%) or already had (14%) circumcised. The remaining 37% of Muslim respondents, compared to only 5% of Christian respondents, indicated that they intended to seek a doctor's opinion in deciding whether or not to circumcise their eldest daughter (all differences significant at $p<0.05$).

Regardless of their intention to consult a doctor or not, the large majority of respondents who had or intended to circumcise their daughters said that they had done or would do so at a medical practitioner (91% of all daughters for whom circumcision was performed or intended). This reflects a rapid medicalization of circumcision among the study population. Among urban respondents, 57% of mothers had been circumcised by a medical professional, whereas a medical professional had or was expected to circumcise 93% of their daughters. This trend was even more pronounced among the rural respondents (Figure 2).

The qualitative interview respondents who had or were considering circumcising their daughters were similarly united, and very firm, on the importance of having a medical professional perform

the circumcision. The main reason given for circumcising by a medical professional was their better training and knowledge of how to do the procedure, as compared to a *daya*, and consequently the lower risk to the girl. Respondents described the doctor as being a more “secure” (*adman*) option for performing circumcision because of his or her medical knowledge and ability to deal with emergencies or adverse reactions. Many saw the dangers of circumcision as being immediate, particularly that the girl could “hemorrhage and die,” a possibility that doctors were seen as both unlikely to cause and more able to deal with in the event that it did happen.

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....The doctor is safer and better, if something happens, he can fix it. He has everything that the issue requires. Dayas were in the past...no one circumcises their daughter at the daya anymore because medicine has progressed. – R5, urban, 4- and 7-year-old daughters

As with the respondent quoted above, many described the turn to doctors for circumcision as a result of “progress” (*taqadum*) and greater “awareness” (*wa’ay*) both among the population and in medicine. Respondents’ common association of excessive bleeding and possible death with poorly performed circumcisions, particularly those performed by traditional practitioners, appeared to come from a combination of personal anecdotes and stories heard about others who had bled after being circumcised. Although none of the respondents mentioned knowing of a girl who died after circumcision, one respondent said she had heard about such cases on the television.

Among a small number of respondents, another perceived advantage of doctors’ medical training was the doctor’s knowledge of how to cut when performing the circumcision.

The doctor has medical knowledge, not like the daya....The doctor knows what he’s doing and how much he will take off, so that it doesn’t affect [the girl] with her husband afterwards. He has medical knowledge. – R21, urban, 9- and 12-year-old daughters

These respondents expressed that traditional practitioners were less likely to know how to circumcise the girl without potentially damaging her sexual relationship with her future husband, for example by cutting too much or cutting an “important part.”

Doctors as a source of consultation for circumcision

For each daughter, respondents were asked the main two reasons for their intention to circumcise, not circumcise, or consult a doctor. Those who had or intended to circumcise their daughters, the large majority of whom were Muslim, cited custom and tradition and religion as the main reasons behind their decision (Table 3). Muslim mothers who did not intend to circumcise were most likely to state that this was “the right thing to do” (*hawa da el’sah*). An additional 21% cited the potential dangers of circumcision, corresponding with the perception that circumcision has immediate health risks. Christian mothers who did not intend to circumcise were also most likely to say that this was the right thing to do, but many gave religion as a reason

for *abandoning* the practice, suggesting that accepted norms are different across religions. Respondents who intended to consult a doctor regarding the circumcision of their daughters were different from those with firm stated intentions in that they most commonly said that their main reason was not being sure whether the girl needs to be circumcised (*elbint mafrūd titkhatin*) or not (56%). However, this being the right thing to do was the second most common reason (20%) for the consultation group as well, again indicating varying views among the study population as to current normative practice.

The qualitative interviews similarly suggested that respondents who reported that they would consult a doctor in deciding whether to circumcise were seeking an authoritative opinion on the practice. Among these mothers there were two main perspectives on the need for a doctor's opinion, which were related to her own prior intentions. The first perspective was among those who were inclined to circumcise, but were afraid of the potential dangers and wanted a doctor to tell them whether circumcision "would be ok" (*yenfa'*) for their daughters.

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

R: God willing I will take her to the doctor first to examine her, if its ok or not ok – he's the one who will tell me. – R12, urban, 9- and 6-year-old daughters

I spoke with [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 caught. 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]. – R29, rural, 13-, 7-, and 3-year-old daughters

This response suggests that the potential dangers of circumcision were seen to be related not only to the provider performing the circumcision, but also to the girl herself.

Another group of mothers, in contrast, wanted to have their daughters examined by a doctor to determine whether she "needed" (*mikhtaga*) to be circumcised.

I: Have you decided whether to circumcise your daughters [names] or not?

R: It depends 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, ok. If there isn't a reason, that's it. – R8, urban, 6- and 4-year-old daughters

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

R: If they doctor says that she needs it.

I: Why do you think the doctor's decision is why you wouldn't circumcise your daughter?

R: I imagine that she [doctor] knows more than us, she [doctor] knows if she [girl] needs or doesn't need [to be circumcised]. – R20, urban, 4-year-old daughter

These mothers did not have strong prior inclinations about whether or not to circumcise their daughters, and seemed to genuinely want an outside medical opinion to tell them what to do. The desire for a medical consultation was related to the perception that some girls need to be

circumcised whereas others do not, a determination that had to be made by a medical professional. This perception was also held by the larger sample of mothers; 84% of respondents (96% of Muslims, $p < 0.001$) in the quantitative survey agreed with the statement “from a medical perspective, some girls should be circumcised.”

Content of mothers' consultations with doctors

The determination of whether or not a girl needed circumcision was also central to respondents' recounting of their consultations with doctors around circumcision. The respondents who had already consulted a doctor reported that the doctor performed an “exam” on the girl (*yekshif 'aleha*) in order to determine whether or not to circumcise.

I: Ok, 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 [fem.] I want to circumcise my daughter” ...And she said, “ok, I'll see first if she needs to be circumcised or not” ...So she examined [the 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.” – R2, urban, 13-, 11-, and 7-year-old daughters

R: No he [doctor] just examined visually. There, I mean, when the clitoris is sticking out from the labia, then the clitoris has to be excised, on the two sides for example, so that she doesn't get any disease, because it can bring diseases when its left, you know, during intercourse with the husband there are problems.

I: Where did you learn that information from?

R: From the doctor. – R24, rural, 12-, 6-, and 3-year-old daughters

The latter respondent had been told by the doctor that her eldest daughter could not be circumcised, based on the exam, and she was provided with the explanation above. The respondent intended to bring her younger daughters to be examined when they grew older.

Although the respondents quoted above reported the doctor telling them not to circumcise their daughters, a small number reported that they or relatives were told by a doctor to do the procedure.

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.” ...He said to us that if we want [to do it] now, it's no problem. So I told him “ok, do it.” – R15, urban, 10-year-old daughter

Another respondent in the rural study site recounted bringing her 9-year-old daughter to a private doctor the previous week, who examined her and said that the girl 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.

One respondent said that the doctor told her 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.

She [doctor] told me, “it won’t make a difference – if you want to circumcise her, you can, if you don’t want to its ok, as you like”...but she told me that it would be better if I didn’t circumcise her now, at the time the girl was still 10 years old, she said I should wait until [the girl] turned 12 or 13. – R21

[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.” – R29

Thus, while a visual exam appeared to be standard practice among the doctors visited by the respondents for consultation regarding circumcision, there was considerable variation in the doctors’ subsequent recommendations.

Trust in the doctor

The doctors that respondents intended to consult were not described as specialists in female circumcision or specific doctors who were known to perform circumcisions. Rather, most respondents said that they would consult their general family practitioner or gynecologist, a doctor they knew from the local health center, or a practitioner who had seen them during pregnancy or delivery. Prior positive experience – whether personal or of friends or relatives – was often mentioned by respondents as a reason for selecting, and trusting, a given practitioner. Correspondingly, respondents who did not or had not previously known a doctor asked their networks for recommendations.

R: All my siblings’ children [daughters], they took them 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. – R10, urban, 5-year-old daughter

Respondents’ reliance on their personal contacts for recommendations that helped them chose trusted doctors for circumcision consultations also highlights the extent to which consulting the doctor was seen as a usual practice among their social networks. In addition to discussing doctors with their networks, a number of respondents described taking their daughters to be examined along with the daughters of relatives.

Honestly I didn’t intend to take them to be circumcised, and then I changed my mind. It was my aunt who encouraged me, she said we’ll take [both daughters] [to be examined] and thank God it turned out that they are both ok [don’t need circumcision]. – R2, urban, on 13-year-old daughter

Later this same respondent stated that she would take her middle daughter, age 11, to be examined by the same doctor.

I: Do you trust her [doctor's] opinion?

R: Yes, because they brought her to this house here [nearby] to examine the girls. And [the doctor] said that they needed to be circumcised, and she circumcised them. So why would she lie? Some need it and some don't.

Other respondents also reported stories of people in their networks, mostly extended family, who were told both that their daughters did and did not need to be circumcised. In several cases, as in the quotes above, respondents cited the fact that doctors did not give the same recommendation for all girls as a reason for trusting him or her, and saw this as evidence that decisions were in fact being made based on individual cases. Some mothers who had not yet taken their daughters for consultation or circumcision also gave the opinion that doctors would do the right thing for each girl.

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. – R23, urban, 7-year-old daughter

The same confidence in doctors' knowledge about circumcision was generally expressed by respondents who had received a recommendation from the doctor; when asked whether she believed that her niece really needed to be circumcised, the respondent (R15) quoted above who was advised to circumcise answered "of course."

Doctors' opinions or mothers' preferences

Figure 3 shows responses to the set of vignettes about the hypothetical mother's circumcision decision, demonstrating that respondents almost always followed either their own preferences or those of the hypothetical husband or doctor. Yet regardless of their own circumcision intentions, respondents advised the hypothetical mother to follow the doctor's advice more often than they advised her to follow the future husband's preferences. For example, 51% of mothers who did not intend to circumcise their own daughters always advised the hypothetical mother to follow the doctor's recommendation, whereas only 8.5% of this group always advised her to follow the husband's preferences. Adherence to the doctor's recommendation was even higher among respondents who had or intended to circumcise their daughter (66%) and those who intended to consult a doctor (91%, $p < 0.05$). This suggests that mothers who reported that they planned to seek out a doctor's opinion are indeed the most mutable in terms of their circumcision intentions.

In the qualitative interviews, respondents who intended to consult a doctor expressed a range of opinions on what they would do if the doctor recommended the opposite of their prior inclinations regarding circumcision. A number of respondents said that they would follow the doctor's opinion no matter what; one urban respondent (R13) whose prior inclination was not to circumcise her daughter, currently age 6, explained that "*the word of medicine is what will go.*" The rural respondent (R24) quoted above who was advised by the doctor not to circumcise also did in fact follow this advice, despite her intention to circumcise. Other respondents, however, said that they would seek a second opinion from another doctor if they were told the opposite of 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 [the doctor] said this. Is that the best thing? Or what's the best thing? – R22, urban, 1-year-old daughter*

Several other respondents, of whom some were inclined to circumcise and some not, said that they would follow their own intentions regardless of what the doctor said. Only one respondent reported going against the doctor's advice: the respondent (R21) who was told that it would not matter for her daughter if she circumcised or not, but that she should wait until the girl was older, reported that she had gone ahead and had the girl circumcised anyway.

Knowledge of the ban on female circumcision

There have been widespread campaigns in Egypt highlighting the negative consequences of female circumcision, and nationally over 70% of women report having seen a message about *khitan* (El Zanaty & Way, 2009). Less is known about knowledge of the legality of the practice after the ban, an important issue for studies of circumcision practice because knowledge of the ban may encourage respondents to underreport actual or intended circumcision practice. In addition, mothers who report that they plan to consult a doctor may be doing so in order to obfuscate responsibility, either because the ban would hold them culpable or because they do not want to admit to supporting a practice around which there is growing uncertainty.

In our survey, only 27% of respondents reported that the practice of female circumcision was illegal in Egypt at the time of the survey. As shown in Table 4, wealthier mothers, those who worked for pay, and Muslims were more likely to report that the practice is illegal. This could mean that information about the ban has not been as well publicized, or that women do not want to report that they know the practice is illegal. For example, mothers with more daughters were less likely to report that the practice is illegal. These mothers were more likely to have already circumcised at least one daughter and may therefore have been more reluctant to admit that they knew the practice is illegal.

Cost of circumcision

Although there appears to be a substantial knowledge gap among the mothers in our sample regarding the illegality of female circumcision, previous studies show that doctors do know that circumcision is banned, and cite profit as a motive for some doctors to perform the procedure (Refaat, 2009). Accordingly, we asked respondents to report what they paid or expected to pay for the procedure. Regardless of household wealth, there appears to have been a going price for female circumcision of between 150-200 Egyptian pounds (USD 22–29 as of January 31, 2014) in the study area (Figure 4). However, there were differences in reported price among women who already had their daughters circumcised compared to those who intended to. After accounting for the age of the daughter and the year in which her mother intended to circumcise her, as well as the mother's education and wealth, mothers of already circumcised girls report a price of about 70 pounds less on average. Mothers in the urban site also report an average price of about 70 pounds less [regression available upon request].

Discussion

The medicalization of FGM/C in Egypt has been well noted, but few previous studies have examined the dynamics of interactions between families and medical professionals around the practice, or the potential role of doctors in decisions about whether or not to perform FGM/C. This role is particularly important to understand for the debate about whether medicalization should be viewed as a harm reduction strategy or a trend that will delay abandonment of the practice (Shell-Duncan, 2001). Although the dynamics and cultural meanings around medicalization are different across the diverse contexts in which FGM/C is practiced (Christoffersen-Deb, 2005), the results of this study pose some important questions for this debate.

Our results confirm, as has been previously hypothesized (El-Gibaly et al., 2002) that mothers in Egypt are turning to medical professionals to perform FGM/C because they see this as a means of harm reduction. Harm reduction was most commonly understood to mean mitigating the risk of acute adverse effects from FGM/C, particularly hemorrhage, although to a lesser degree it included mitigating the risk of long-term sexual side effects. It also seems likely that at least some of the association between poorly performed FGM/C and the possibility that the girl could “hemorrhage and die,” a phrase respondents used very consistently, is associated with media messages. There has been media coverage of deaths from FGM/C in Egypt (e.g. Khaleefa, 2015), and, as noted above, most women in Egypt report having seen media about FGM/C.

At the same time, our results suggest that there is a population of young mothers who are confused about the potential harms and benefits of FGM/C, and are therefore seeking a medical opinion at least in part to help them decide whether or not to submit their daughters to the practice. This corresponds with a general trend seen in the EDHS, in which a growing percentage of women report that they do not know whether they will perform FGM/C on their daughters (El Zanaty & Way, 2009) as well as recent, small qualitative study that found that parents face growing uncertainty about the practice (Abdelshahid & Campbell, 2015). The discussion among our study respondents about whether a girl “needs” or “can” be circumcised may be a reflection of this broader confusion over FGM/C, and is an important factor driving demand for medical consultations.

The other side of this interaction, however, is that of the doctors. Although our respondents reported varying recommendations from doctors about FGM/C, it does appear that some are being advised to perform FGM/C on their daughters. Others are being told to have their daughter examined again; in other words, in these cases, while not recommending FGM/C outright, doctors are not telling mothers that it has no medical benefit. Doctors’ basis for making this decision was reported by all respondents who had had a consultation to be a physical exam; which was seen, along with variation in recommendations, as a sign of legitimacy and suggests that some doctors may in fact be making a judgment call based on their examination, as opposed to a blanket recommendation for all girls. The issue of doctors recommending – or at least not discouraging – the practice goes back to previously cited concerns that medicalization could lead doctors to have a stake in not seeing FGM/C abandoned (Shell-Duncan, 2001). Whether this may be due to profit motive is unclear; the going price we found for circumcision in the study area is

similar to that found in another study (Refaat, 2009), and translates to roughly 14-19% of national health expenditure per capita (WHO, n.d.).

The lack of complementary data from doctors is a main limitation of this study, as our respondents' reports of their interactions with doctors cannot be verified. This is a key area for further research and one that is critical for understanding the implications of medicalization in Egypt, as well as countries in which medicalization is increasing but not yet as common. Other limitations of the study are that our selection of participants was non-random and limited to a small geographic area; larger and more representative studies that offer respondents the option to report that they will consult a medical professional about FGM/C are needed in order to identify variation in the role of these professionals in the practice of, and decisions about, FGM/C. Finally, the mothers we spoke to had daughters of varying ages, and thus were in different stages of their thinking around FGM/C. Particularly given the evidence that the women in our study population face a growing degree of uncertainty over FGM/C, it is possible that some will change their minds by the time their daughters reach the age of FGM/C.

Nevertheless, these results also raise concerns about the ban on FGM/C and its interaction with medicalization. It has been noted elsewhere that bans on FGM/C are likely to be ineffective in the absence of social change (Shell-Duncan, 2001; UNICEF, 2013), and this appears to be the case in our study area. The majority of respondents professed not to know about the ban, although this may be affected somewhat by underreporting. More importantly, illegalization in the face of continued demand for the practice has clearly not been sufficient to prevent doctors from performing, or perhaps even recommending, that mothers perform FGM/C on their daughters. There is currently no official medical curriculum around FGM/C for doctors in Egyptⁱ, and medical students' knowledge of the practice has been found to be poor (Mostafa et al., 2006). However, the situation is changing with an anonymous hotline established to report cases of FGM/C (UNICEF, 2010), and nationally organized NGOs reaching out to young doctors to provide and establish medical curriculum around FGM/C and engage with the medical community around their role in this practice.ⁱⁱ

Conclusion

With the medicalization of FGM/C in a number of countries it is increasingly important to understand the dynamics of medical professionals' involvement in the practice and its implications for harm reduction and abandonment. The findings of this study suggest mixed results in terms of the former; on the one hand, mothers report turning to doctors to perform female circumcision as a means of harm reduction. On the other, mothers also report turning to doctors for a medical opinion on whether or not to perform FGM/C on their daughters – and not always hearing a “no” in response. If medical professionals are recommending, or even not discouraging, the practice of FGM/C, this has concerning implications for the prospects of abandonment. However, the high degree of trust that respondents expressed in doctors' opinions also suggests that if doctors were consistently advising families not to perform FGM/C on their daughters, they could be a persuasive constituency in the anti-FGM/C campaign. Further training for medical professionals on FGM/C, as well as targeted interventions to reduce the practice that are based on a more detailed understanding of doctors' profit, medical, and social motivations for not rejecting FGM/C, are needed in order to move in this direction.

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ⁱ Interview with the National NGO Coalition against FGM, Cairo, 21 January 2014

ⁱⁱ Ibid.

Appendix: Comparison of sample wealth quintiles to the nationally representative Egypt Labor Market Panel Survey

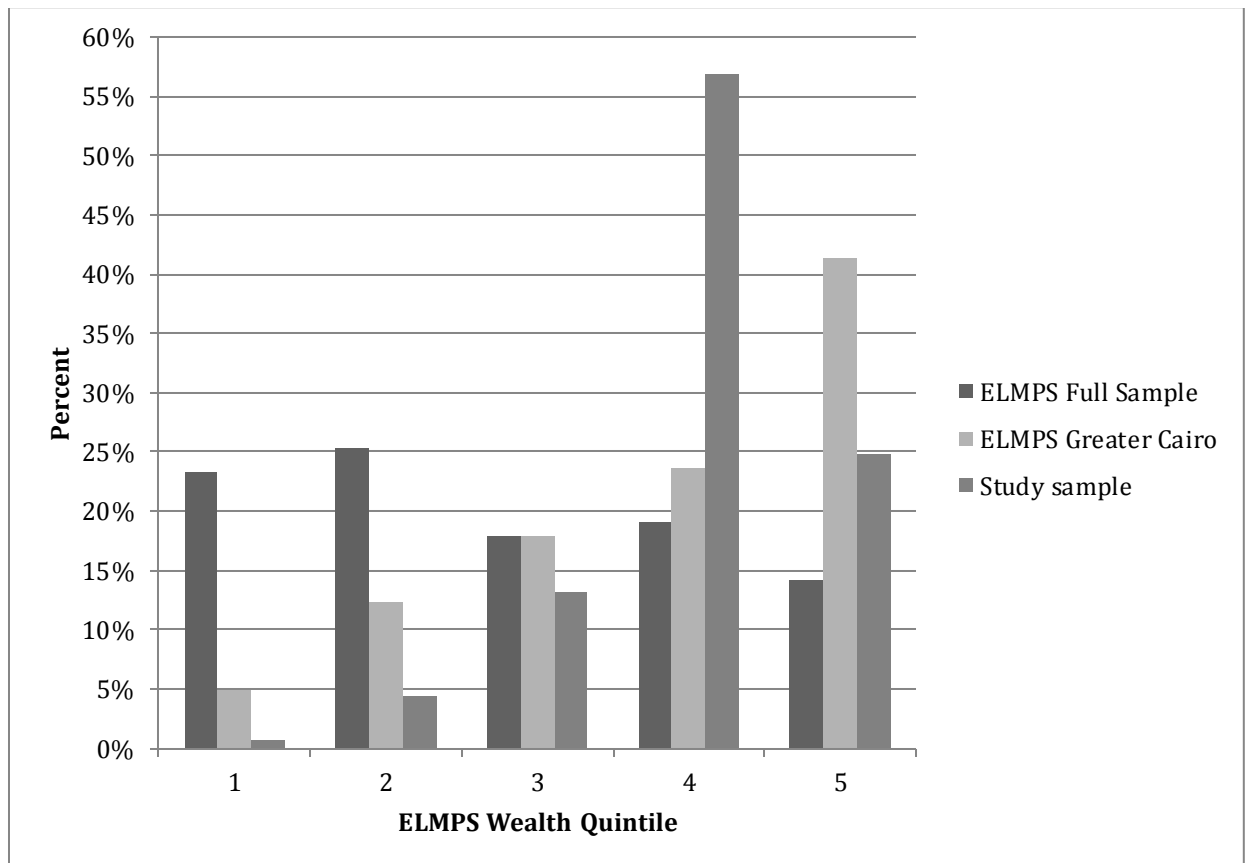


Table 1: Vignettes on the assertion of mothers' preferences over those of doctors or potential husbands

Set A: Hypothetical juxtaposition of mother's preferences vs. doctor's recommendation	Set B: Hypothetical juxtaposition of mother's vs. future husband's preferences
<p><i>Set 2A) "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 check-up and the doctor says that the girl should be circumcised. Do you recommend that she circumcise the girl or not?"</i></p>	<p><i>Set 1A) "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?"</i></p>
<p><i>Set 2B) "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 check-up and the doctor told her that the girl should not be circumcised. Do you recommend that she circumcise the girl or not?"</i></p>	<p><i>Set 1B) "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?"</i></p>
<p><i>Response categories:</i> <i>Yes</i> <i>No</i> <i>Don't know</i></p>	<p><i>Response categories:</i> <i>Yes</i> <i>No</i> <i>According to the doctor's opinion</i> <i>Don't know</i></p>

Table 2: Socio-demographic characteristics of the full and qualitative samples

	Full sample (N=410)		IDI sample (N=29)		Diff
	Mean	SE	Mean	SE	
Respondent characteristics					
Age (years)	31.3	0.16	32.0	0.58	
Husband's age (years)	36.9	0.27	38.1	0.80	
Age at first marriage (years)	20.0	0.15	19.6	0.58	
Age difference with husband (years)	5.5	0.23	6.1	0.81	
Education					* &
Illiterate	0.16	0.02	0.17	0.07	
Literate or primary	0.16	0.02	0.31	0.09	
Preparatory or incomplete secondary	0.09	0.01	0.00	0.00	
Complete secondary	0.44	0.03	0.45	0.09	
More than secondary	0.15	0.02	0.07	0.05	
Currently employed for pay	0.15	0.02	0.07	0.05	
Circumcised	0.92	0.01	0.90	0.06	
Age at circumcision (years)	9.6	0.13	9.6	0.34	
Household characteristics					
Urban	0.656	0.023	0.793	0.077	
Muslim	0.68	0.02	0.86	0.07	**
Wealth quintile (within sample)					
W1 (poorest)	0.20	0.02	0.17	0.07	
W2	0.23	0.02	0.21	0.08	
W3	0.19	0.02	0.24	0.08	
W4	0.18	0.02	0.24	0.08	
W5 (wealthiest)	0.20	0.02	0.14	0.07	
Number of children	2.6	0.05	2.9	0.17	
Number of daughters	1.6	0.04	1.9	0.17	* &
Daughters' characteristics					
Full sample (N=661) IDI sample (N=54)					
Age (years)					
All daughters	6.8	0.16	7.4	0.52	
Eldest daughter	7.8	0.20	8.8	0.67	
Youngest daughter	5.5	0.19	5.9	0.71	
Age at circumcision/intention to circumcise for those who may circumcise (years)	10.7	2.03	10.7	2.05	

Significant at the *** 1%; **5%; * 10% level

& Not significantly different amongst Muslim respondents

Table 3: Respondents' reasons for their circumcision intentions for their daughters

	Most common reason	Second most common reason
Consult Doctor	Don't know if the girl should be circumcised or not (56%)	It's the right thing to do (20%)
Did/will circumcise	Custom/tradition (44%)	Religion (30%)
Will not circumcise		
Muslim	It's the right thing to do (30%)	Circumcision is dangerous (21%)
Christian	It's the right thing to do (29%)	Religion (25%)

Table 4: Factors associated with respondents' knowledge of the FGM/C ban in Egypt

	State circumcision is illegal in Egypt	
Age	1.04 (0.956 - 1.131)	
Education (omitted illiterate)		
Literate or primary	1.594 (0.547 - 4.641)	
Preparatory or incomplete secondary	1.737 (0.259 - 11.65)	
Complete secondary	1.29 (0.389 - 4.278)	
More than secondary	2.033 (0.815 - 5.074)	
Wealth quintile (omitted W1)		
W2	0.91 (0.371 - 2.232)	
W3	0.985 (0.644 - 1.507)	
W4	0.896 (0.456 - 1.763)	
W5	2.11 (1.689 - 2.637)	***
Muslim	3.341 (1.875 - 5.952)	***
Urban	0.93 (0.701 - 1.233)	
Works for pay	1.589 (1.272 - 1.985)	***
Number of daughters	0.874 (0.766 - 0.999)	**
Constant	0.0402 (0.00209 - 0.773)	**
Observations	354	

*** p<0.01, ** p<0.05, * p<0.1

Robust clustered standard errors reported in parentheses

Respondents reporting "don't know" or refused dropped from analysis

Figure 1: Respondent’s circumcision status and intentions for eldest daughter, by religion

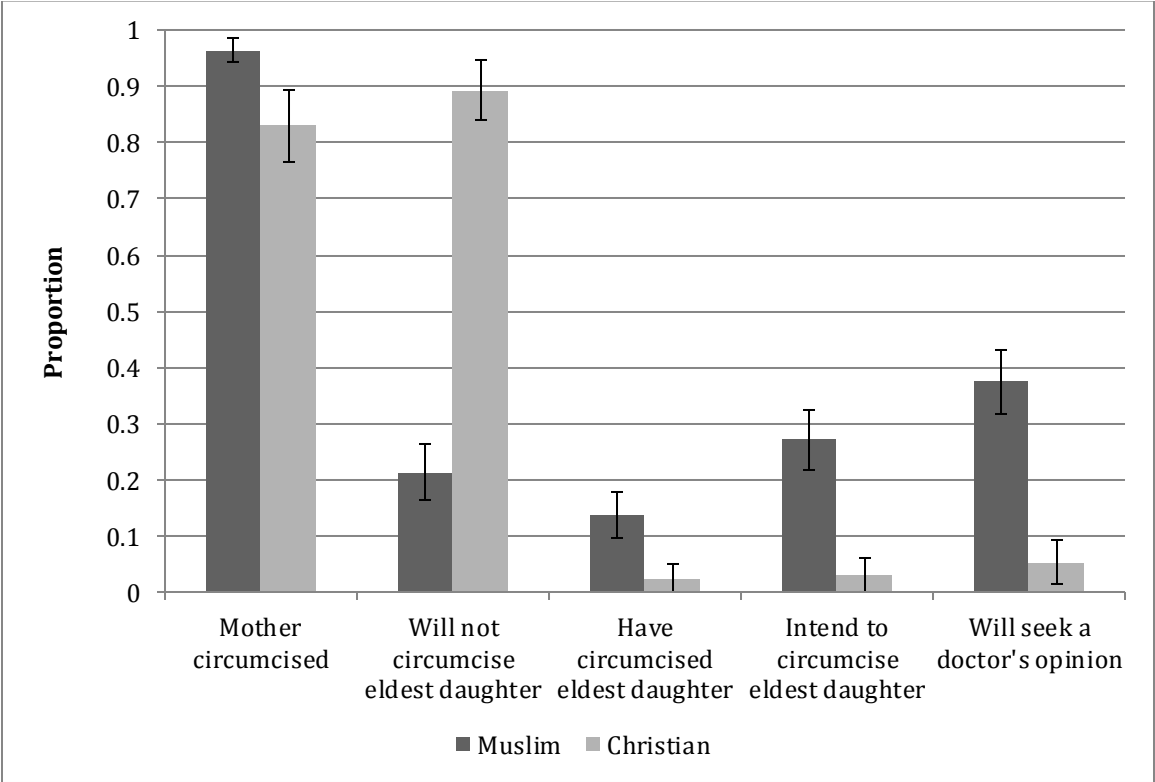


Figure 2: Medicalization of female circumcision among the study sample

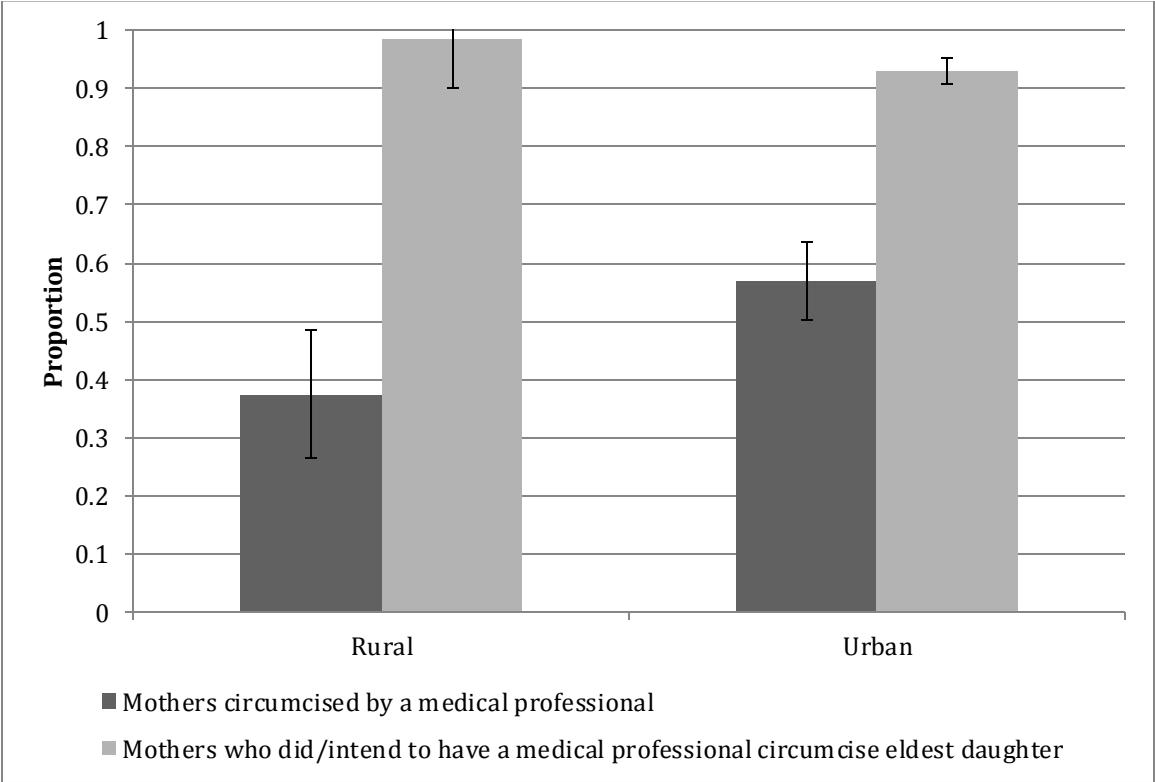


Figure 3: Responses to vignettes for hypothetical mother's circumcision decision

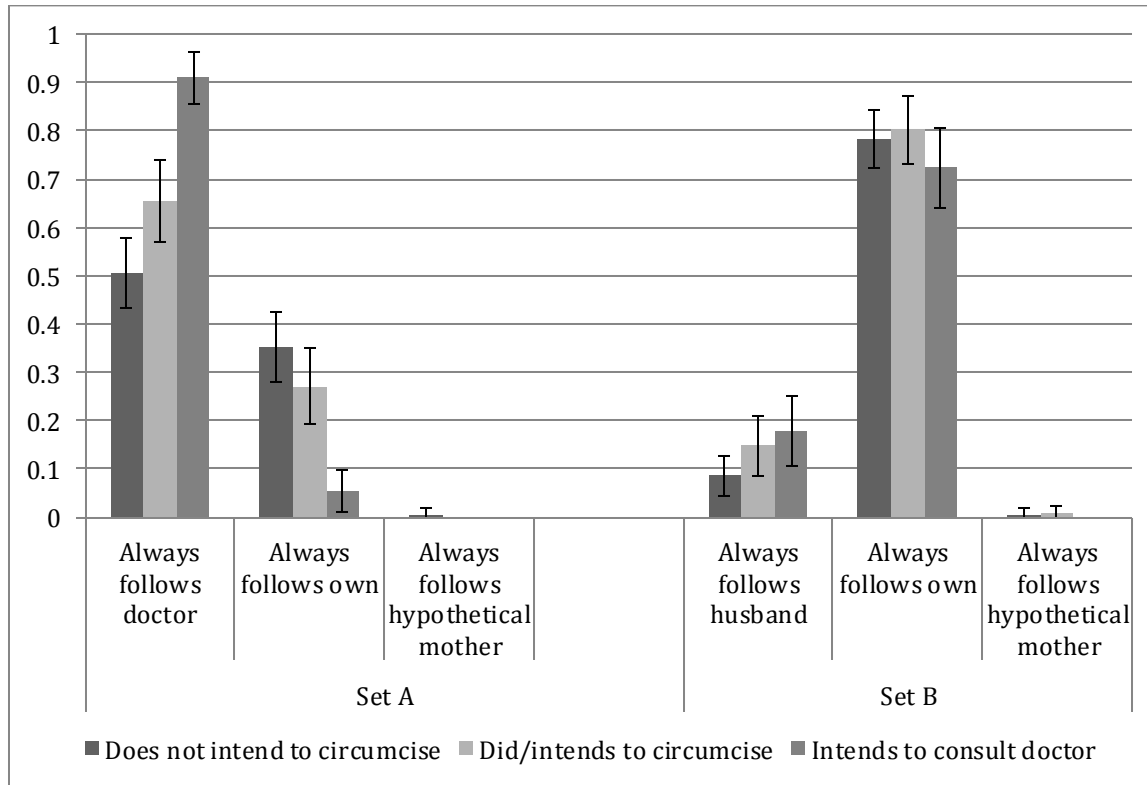


Figure 4: Reported or expected price to have circumcision performed, by wealth quintile (Egyptian Pounds)

