

Original Article

Women's Empowerment and the Intention to Continue the Practice of Female Genital Cutting in Egypt

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Background: The study aimed to (dis)prove the association of the level of women's empowerment with their future intention to perpetuate female genital cutting for their daughters.

Methods: In a national representative community-based sample of 14,393 currently-married women in Egypt, the level of empowerment, intention to continue the practice, and other socio-demographic variables were collected in the 2000 Egypt Demographic and Health Survey. Secondary in-depth analysis was conducted on data downloaded from MEASURE Demographic Health Surveys (MEASURE DHS) website.

Results: About 14% of the women intended to discontinue the practice. Twenty-six percent of the women were empowered in all household decisions. Levels of women's empowerment adjusted for age, residence, education, interaction between empowerment and education, work status, and female genital cutting status of currently-married women were entered in six logistic regression models in a sequential way.

Conclusion: In the last model, those of high levels of empowerment and education were 8.06 times more likely not intending to perpetuate female genital cutting for their daughters than low-empowered low-educated women.

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Introduction

Autonomy has been defined by Dyson and Moore as the ability—technical, social, and psychologic—to obtain information and to use it as the basis for making decisions about one's private concerns and those intimates.¹ The terms women's empowerment and autonomy have been used interchangeably to denote women's independence at various levels. There is a common assumption that education leads to autonomy; that education lets women stand up to their husbands and/or provides them a forum to make effective use of the healthcare system.²

Few studies in the Arab world have attempted to evaluate women's empowerment or attitude towards it, and its influence on demographic, social, or health indicators. Most of these studies tend to focus on the decision-making autonomy and physical autonomy by analyzing women's involvement in decision-making at the household level and their freedom of movement.³⁻¹⁰ However, Nawar included other areas of autonomy than just decision-making and freedom of movement as self-choice of spouse, current participation in labor force, work as important to women's personal fulfillment, looking after one's own health, and insisting on own opinion or trying to convince or reconcile in case of disagreement.¹¹ Al Riyami and Afifi,^{5,6} concluded that both indices of women's empowerment (decision-making and freedom of movement) were not always predicting the same indicator. They added that empowerment was a culture-related issue and looking at it from all its angles could change our perspective and allow us to invent a new index of women empowerment

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comprising not only of decision making but also freedom of movement.^{5,6}

Female genital cutting (FGC), also known as female circumcision, or female genital mutilation (FGM), is a common practice in many societies in the northern half of sub-Saharan Africa as well as in Egypt and Yemen. The prevalence of FGC in the countries of northeastern Africa (Egypt, Eritrea, Ethiopia, and northern Sudan) ranges from 80% to 97%, while that of eastern Africa (Kenya and Tanzania) ranges from 18% to 38%. Except for countries with prevalence rates above 90%, the prevalence of FGC varies widely within countries by ethnicity. The amount of cutting varies from a symbolic nicking of the clitoris to excision of tissue and partial closure of the vaginal area (infibulation).¹²

Despite the highly significant secular decline in the incidence of FGC during the last 20 years in many African countries,¹²⁻¹⁴ Egypt still maintains its very high prevalence of FGC.^{12,15}

FGM is still a controversial issue among the Egyptian community and the medical professionals.¹⁶ Egyptian health policy has shifted its strategies from controlling the practice to keeping it under supervision by training the Egyptian traditional birth attendants.¹⁷ As such, nearly half of the female circumcisions practiced in 1995 was performed by physicians.¹⁸ Moreover, more than one fifth of medical students in a previous study did not consider FGM to be a problem. Some of them even wrote comments in defense of it indicating the influence of their cultural roots.¹⁶ The 2000 Egypt Demographic and Health Survey (2000 EDHS),¹⁵ displayed the bivariate association of some independent variables with women intending to perpetuate it for their daughters. To the best of our knowledge no previous study in the Arab world accessible from the PubMed website investigated the association of not intending to perpetuate FGC with women's empowerment while the other sociodemographic variables controlling in a multivariate model. Understanding why the practice continues may lead to identify more effective ways to tackle it. Investigating its association with other gender issues, women's empowerment could enable us to plan to change the attitude towards the practice.

The aim of this study was to (dis)prove the association of the level of currently-married women's empowerment in household decisions with their future intention to perpetuate FGC for

their daughters while the other predictors to continue the practice have been controlled.

Materials and Methods

Data from the 2000 EDHS,¹⁵ were downloaded on 17th May 2006 for free from the MEASURE DHS website.¹⁹ Before downloading the data, the author submitted a request for access to datasets and it was approved before access was granted. Access is only granted for legitimate research purposes. The 2000 EDHS is a nationally representative household survey of 15,573 ever-married women's sample aged 15 – 49 who were selected using a multistage sampling technique. A face to face structured interview was administered and with a response rate of 99.5%, the women completed the questionnaires. The 2000 EDHS provides a wealth of health-related information on fertility, family planning, maternal and child health and nutrition, and a module on FGC. The current study was a secondary in-depth analysis conducted on a subsample of 14,393 currently-married women. The sample design and detailed study methods and tools of the original survey were previously published in details by El Zanaty and Way.¹⁵

The outcome or dependent variable introduced in the analysis in this study was currently-married women's intention to perpetuate FGC for their daughters (0=intend to perpetuate, 1=do not intend to perpetuate). The independent or predictor variables were women's age (as a continuous variable), being cut or not (cut=0, uncut=1), women's education (illiterate to below secondary=0, secondary and above=1), work status (not working for cash=0, working=1), residence (rural=0, urban=1), empowered in all household decisions (not empowered in all household decisions=0, empowered in all decisions=1), and the interaction variable between empowerment and education variables (four categories shown in Table 1).

The empowerment variable as a predictor of intention to perpetuate the practice was based on summing the women's responses on five questions enquiring about who in the household has the final say in decisions related to five specific areas: the women's own healthcare, large household purchases, everyday household purchases, visits to friends and relatives, and what food to cook each day. Woman's or joint decision-making with her

Table 1. Background characteristics of the currently-married women.

Variables	Unweighted percentage	Number
Age in years, mean (SD) (<i>n</i> =14393)	32.9 (8.6)	
Ever-married women with FGC (<i>n</i> =14392)	96.4	13876
Intention to perpetuate FGC for daughters (<i>n</i> =10673)		
Intend to have their daughters cut	32	3411
Have at least a daughter cut	47	5021
Not intend to have their daughters cut	10.8	1366
Don't know	8.2	875
Not intend to cut (vs. intend or already done) (<i>n</i> =9798)	13.9	1366
Education		
Completed secondary and above (<i>n</i> =14393)	32.4	4661
Work status, working for cash (<i>n</i> =14393)	14.4	2074
Residence, urban (<i>n</i> =14393)	46	6621
Empowered in all household decisions (<i>n</i> =14393)	26.4	3799
Interaction between education and empowerment (<i>n</i> =14393)		
Low empowerment, low education	53.4	7688
Low empowerment, high education	20.2	2906
High empowerment, low education	14.2	2044
High empowerment, high education	12.2	1755

FGC=female genital cutting.

husband or others was coded “1”, whereas husband or someone else alone was coded as “0”. A score for empowerment in household decisions’ scale was then constructed ranging from 0 – 5, where 5 constituted women empowered in the five aforementioned areas. Then, the score was dichotomized into “1” for those scored 5 (high empowerment in all the decisions), and “0” which is the reference category representing women of low empowerment (i.e., only empowered in four or less household decisions).

Data analysis was conducted using SPSS for Windows, version 9. Data are given as counts, percentages, and means. After doing the univariate analysis of variables, the level of women's empowerment adjusted for age, residence, education, interaction between empowerment and education, work status, and FGC status of women were entered in six logistic regression models in a sequential way to (dis)prove its association with the outcome variable. The dependant dichotomous variable was coded to 0=intending to perpetuate FGC or already done for one daughter or more and 1=not intending to do. The odds ratio(OR) which shows the change in the odds of dependent variable(s) when the independent variable changed from 0 to 1—in case of binary variables—or the next category or score—in case of categorical or continuous variables—adjusted for other variables in the model. *P* value equal or below 0.05 was

considered significant in all statistical tests.

Results

The mean age of the 14,393 studied currently-married women was 32.9 years (SD=8.6). Of them 96.4% were cut and 13.9% had no intention to perpetuate FGC for their daughters. Only 14.4% of the studied women were working for cash. Urban residents constituted 46% of the participants. Those who completed the secondary education or higher constituted 32.4%, and they were considered as having high education level. Those who had a say alone or shared with husbands in all household decisions were considered highly empowered and constituted 26.4% of the women (Table 1).

Table 2 shows that there was no significant differences in the age of those intend or had their daughter(s) cut and the group with no intention to perpetuate the practice. Education, work, level of empowerment, and residence were significantly associated with the outcome variable. Being uncut was the strongest variable associated with not intending to perpetuate the practice in cross-tabulation bivariate analysis proved by the highest Chi-square.

Levels of women's empowerment adjusted for age, residence, education, interaction between empowerment and education, work status, and

Table 2. Distribution of intention to perpetuate female genital cutting according to its predictors in bivariate analysis ($n=9798^1$).

			Intend or have daughters cut	Not to intend	Total	Chi-square/ <i>t</i> -test (<i>P</i>)
Respondent's age (in years)	Mean (SD)		35.16(8.1)	34.83(7.48)	9798	1.89 (0.169)
Education	Below secondary	Count	6808	410	7218	1365.01 (<0.001)
		%	94.32	5.68	100	
	Secondary +	Count	1624	956	2580	
		%	62.95	37.05	100	
Total	Count	8432	1366	9798		
		%	86.06	13.94	100	
Work status	No work	Count	7526	909	8435	409.59 (<0.001)
		%	89.22	10.78	100	
	Work	Count	906	457	1363	
		%	66.47	33.53	100	
Total	Count	8432	1366	9798		
		%	86.06	13.94	100	
Residence	Rural	Count	5192	294	5486	785.86 (<0.001)
		%	94.64	5.36	100	
	Urban	Count	3240	1072	4312	
		%	75.14	24.86	100	
Total	Count	8432	1366	9798		
		%	86.06	13.94	100	
Empowered in all household decisions	Not empowered	Count	6385	899	7284	57.49 (<0.001)
		%	87.66	12.34	100	
	Empowered	Count	2047	467	2514	
		%	81.42	18.58	100	
Total	Count	8432	1366	9798		
		%	86.06	13.94	100	
Interaction between empowerment (emp.) and education (educ.)	Low emp., low educ.	Count	5350	342	5692	1378.31 (<0.001)
		%	93.99	6.01	100	
	Low emp., hi educ.	Count	1035	557	1592	
		%	65.01	34.99	100	
	Hi emp., low educ.	Count	1458	68	1526	
		%	95.54	4.46	100	
	Hi emp., hi educ.	Count	589	399	988	
		%	59.62	40.38	100	
Total	Count	8432	1366	9798		
		%	86.06	13.94	100	
Respondent was cut	Yes	Count	8397	1086	9483	945.79 (<0.001)
		%	88.55	11.45	100	
	No	Count	35	280	315	
		%	11.11	88.89	100	
Total	Count	8432	1366	9798		
		%	86.06	13.94	100	

¹ Because 4595 cases did not answer the question of intention or gave don't know answer and dealt as missing cells, n summed to 9798 in cross-tabulation.

FGC status of currently-married women were entered in six logistic regression models in a sequential way as shown in Table 3. In the first model, highly-empowered women were 1.62 times more likely not to have an intention to perform FGC for their daughters than women of lower level of empowerment after adjusting only for age variable. Empowerment remained as a significant predictor for not intending to perpetuate FGC for daughters in model 2 after adjusted to both age and residence (OR=1.43). In model 3, the level of education was a stronger predictor and empowerment was out of the logistic regression equation. In model 4, we entered a new variable of

the interaction between empowerment and education. This variable was then in the equation as a strong predictor whilst both education and empowerment variables were no longer significant.

Such significant association of the interaction persisted after adjustment to work status in model 5 and even to the strongest predictor of not intending to perform FGC for daughters which is "the women herself being uncut" (OR=115.44) in model 6. Those of high level of empowerment and high level of education were 8.06 times more likely not intending to perpetuate FGC for their daughters than low-empowered low-educated women. The 95% CI of the OR of those highly

Table 3. Association of currently-married women's empowerment in household decisions with not intending to perpetuate female genital cutting by them for their daughters in logistic regression models (n=97981).

Variables	Adjusted OR	Lower 95% CI	Upper 95% CI
<i>Model 1: adjusted for age</i>			
Empowered in all household decisions	1.6203	1.4337	1.8313
<i>Model 2: model 1+residence</i>			
Age	.9783	.9708	.9858
Urban residence	5.9973	5.2225	6.8870
Empowered in all household decisions	1.4357	1.2627	1.6325
<i>Model 3: model 2+education</i>			
Urban residence	3.5125	3.0376	4.0617
Education	6.9919	6.1224	7.9849
<i>Model 4: model 3+interaction between empowerment and education</i>			
Interaction between empowerment and education			
Low empowerment, low education	1		
Low empowerment, high education	5.9525	5.0931	6.9570
High empowerment, low education	.6700	.5119	.8770
High empowerment, high education	7.3339	6.1624	8.7282
Urban residence	3.3542	3.0555	4.0789
<i>Model 5: model 4+work status</i>			
Interaction between empowerment and education			
Low empowerment, low education	1		
Low empowerment, high education	5.5742	4.7320	6.566
High empowerment, low education	.6611	.5049	.8655
High empowerment, high education	6.6112	5.4626	8.0013
Urban residence	3.5037	3.0284	4.0535
Working	1.2378	1.0553	1.4517
<i>Model 6: model 5+women FGC status</i>			
Interaction between empowerment and education			
Low empowerment, low education	1		
Low empowerment, high education	6.7270	5.5992	8.0821
High empowerment, low education	.8078	.6030	1.0822
High empowerment, high education	8.0634	6.5346	9.9500
Urban residence	3.8740	3.2899	4.5619
Working	1.2429	1.0483	1.4737
Ever-married women with FGC	115.4394	77.318	172.354

FGC=female genital cutting, OR=odds ratio, CI=confidence interval.

empowered low-educated women was not significant.

The other variables independently predicted the likelihood of not intending to cut daughters were urban residence and working for cash. The OR of these variables independently changed from a model to another according to the number of variables introduced. In the final model, those residing in urban areas were 3.87 times more likely not intending to perform FGC for their daughters. Those working for cash were 1.24 times more likely not to perpetuate cutting.

Discussion

The current study proved the association between women's empowerment and education and the intention to discontinue the practice of FGC for daughters while the other determinants such as age, residence, work status, and even the powerful determinant; being a cut woman had been controlled. Despite the study—to the best of our knowledge—is the first to investigate this association, some limitations should be admitted.

First, we depended merely on women's status of household decision as a proxy to women's empowerment index. Unfortunately, the 2000 EDHS did not comprise the module of freedom of movement. However, given the multidimensional nature of women's empowerment, we have to admit this limitation.

Second, because of the nature of the study design where causality and/or temporal association could not be established in cross-sectional design, we could not say for sure whether empowered women developed their negative attitude towards continuation of the practice resulted from their level of autonomy and freedom or from their autonomous status in their homes with their partners. Hence, we could not have a definite clue “whether empowered women would not perpetuate the practice for their daughters or not”.

Finally, the paucity of research articles about FGC searched on PubMed and its determinants in the Arab world and the diversity in its methodology and statistical analysis comprised another limitation to compare and interpret our results.

Young age proved to be associated with intention to discontinue the practice in our study only in model 2 of the logistic regression. This is partially in line with a previous study,²⁰ which

proved that only 5% of those <25 years intended to continue FGC, while 16% of those 25 – 34 years old and a dramatic 75% of those ≥ 35 years intended to continue the practice. Our finding of ruling out age as an independent predictor in the rest of logistic regression models did not fully support the contention that attitudes toward FGC is changing over time in Egypt. Actually, it helps us to understand why Egypt still maintains its very high prevalence of FGC,^{12,15} albeit the highly significant secular decline in the incidence of FGC during the last 20 years in many other African countries.^{12–14}

The lack of significant association of age in the rest of the models is explained by the relative importance of other predictors such as empowerment, education, interaction between both work status and residence i.e., the variables persisted in being significant predictors till the last model. Therefore, to plan to change women's attitude to discontinue the practice of FGC, more emphasis should be given to these factors because being young *per se* is not the silver bullet to terminate the practice.

Egypt, similar to other Arab countries, is a gender-stratified society, which places limits on the decisions educated women can make. As Jejeebhoy has noted, it takes women in highly gender-stratified societies “considerably more education before (they can) overcome these cultural constraints and are involved in decisions seen as major to the household”.²¹

In short, education and/or employment do not necessarily enhance autonomy if traditional factors remain strong. Jejeebhoy and Sathar²² noted that traditional forms of authority can have a strong effect on women's autonomy in communities with wide gender disparities.²² Therefore, and also due to the multidimensional nature of women's empowerment, empowerment variable *per se* was not a significant predictor of intention to discontinue the practice and education played a more significant role. Yet, the interaction between empowerment and education was significantly stronger and gets out the effect of education as an independent predictor from the logistic regression equations in models 4 – 6.

Urban residence was shown to be a strong predictor of intention to discontinue the practice, adjusted to the interaction of empowerment and education, employment, and being uncut in model 6. Our finding is consistent with what Dandash et

al. have found.^{23,24} They concluded in their studies that rural residence was the main variable of continuation of this practice in a culture of which traditions and habits were strongly respected.^{23,24} Hence, they as well as this author recommend that more efforts have to be spent by the Egyptian government and Non-governmental organizations (NGOs) to decrease the illiteracy rate especially in rural areas in addition to a rural population-tailored health education program. Therefore, the author's future study would investigate the association of different beliefs, opinions about benefits, or disadvantages of FGC and different sources of information to which women were exposed, with intention to discontinue the practice.

To conclude, the current study highlighted the strong association between the different important gender issues in Egypt. As Refaat et al.²⁵ concluded that cut women were more likely to accept the right of husbands to beat their wives,²⁵ we conclude that the interaction of high empowerment and high education status independently predicts the intention to discontinue the practice of FGC.

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