

## WOMEN'S SEXUAL HEALTH

## Female Genital Self-Image in Women With and Without Female Genital Mutilation/Cutting in Jeddah, Saudi Arabia



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## ABSTRACT

**Introduction:** The consequences of female genital mutilation/cutting (FGM/C) on female genital self-image are not known.

**Aim:** To assess whether women with and without FGM/C differed with regard to female genital self-image.

**Methods:** A survey was administered to a group of women attending the King Abdulaziz University Hospital obstetrics and gynecology clinic from December 2016 to August 2017. 963 consecutive adult women seen at the clinic completed the survey.

**Main outcome measures:** The main outcome measure of this study was female genital self-image being assessed with the female genital self-image scale (FGSIS).

**Results:** One-fifth (18.2%) of the women self-reported having undergone FGM/C as young girls. Women with FGM/C had a similar FGSIS score as women with no FGM/C ( $21.3 \pm 4.6$ ,  $n = 175$  vs  $21.6 \pm 4.8$ ,  $n = 756$ , analysis of variance,  $P = .37$ ). In multivariate regression analysis, only level of education remained independently associated with the FGSIS score. Women with some university education had a greater mean FGSIS score than women with no university education ( $22.1 \pm 4.49$ ,  $n = 564$  vs  $20.8 \pm 5.03$ ,  $n = 399$ ,  $P < .0001$ ).

**Conclusions:** Women with and without FGM/C in a Saudi Arabian clinic generally had a similarly positive genital self-image. Only level of education was independently associated with the FGSIS score. **Rouzi AA, Berg RC, Alamoudi R, et al. Female Genital Self-Image in Women With and Without Female Genital Mutilation/Cutting in Jeddah, Saudi Arabia. Sex Med 2020;8:752–756.**

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**Key Words:** Circumcision; Female Genital Mutilation/Cutting; Female Genital Self-Image Scale; Saudi Arabia

## INTRODUCTION

Rituals involving the female external genitalia have been performed for cultural and religious reasons for thousands of years.<sup>1</sup> These practices range widely, from genital rubbing to a tiny pin

prick to excision of the clitoris to infibulation.<sup>2</sup> The morbidity associated with some of these practices has led the World Health Organization to classify all such procedures as female genital mutilation/cutting (FGM/C) and issue an international call to end the practices. In spite of this effort, as many as 200 million women living today have undergone one of these procedures, and 3 million continue to be subjected to FGM/C every year.<sup>3</sup>

In brief, FGM/C type I consists of excision of the clitoral hood with or without excision of any portion of the clitoris, type II consists of excision of any portion of the labia minora with or without excision of the clitoris and/or labia majora, type III consists of various procedures that narrow the vaginal orifice (infibulation), and type IV consists of various procedures including pricking, piercing, incising, scraping, and cauterizing the genital area. FGM/C is performed largely in Africa, the Middle East, and Asia and among populations of immigrants from the about 30 countries where FGM/C is commonly

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**Table 1.** Sociodemographic characteristics of the study participants, by FGM/C status and total

	Women with FGM/C n = 175	Women with no FGM/C n = 756	Total sample N = 963	Test for difference
Age, y (average, SD)	33.4 ± 9.95	28.1 ± 8.62	28.9 ± 9.1	<i>P</i> < .001*
Nationality				
Saudi	87 (49.7)	572 (75.7)	683 (70.9)	<i>P</i> < .001*
Naturalized Saudi	23 (13.1)	54 (7.1)	79 (8.2)	
Non-Saudi	65 (37.2)	130 (17.5)	201 (20.9)	
Marital status				
Single	42 (24.0)	403 (53.3)	463 (48.1)	<i>P</i> < .001*
Married	122 (69.7)	330 (43.7)	465 (48.3)	
Divorced	8 (4.6)	18 (2.4)	27 (2.8)	
Widowed	3 (1.7)	5 (0.6)	8 (0.8)	
Education				
No university education	80 (45.7)	307 (40.6)	399 (41.4)	ns
Some or completed university	95 (54.3)	449 (59.4)	564 (58.6)	
Occupation				
Student	30 (17.1)	356 (47.1)	404 (42.0)	ns
Part-time employed	11 (6.3)	23 (3.0)	36 (3.7)	
Full-time employed	49 (28.0)	185 (24.5)	239 (24.8)	
Retired	10 (5.7)	6 (0.8)	16 (1.7)	
Stay-at-home housewife	75 (42.9)	186 (24.6)	268 (27.8)	
Monthly income				
<5,000 Saudi Riyal (<≈1,330 US\$)	74 (42.3)	158 (20.9)	240 (24.9)	<i>P</i> < .001*
5,000–10,000 (≈1,331–2,665 US\$)	57 (32.6)	263 (34.8)	330 (34.3)	
>10,000 (≈2,665 US\$)	44 (25.1)	335 (44.3)	393 (40.8)	

FGM/C = female genital mutilation/cutting; ns = not statistically significant.

\*Statistically significant differences between women with FGM/C and women with no FGM/C were found for age, Saudi nationality vs not, married vs not, income <5,000 Saudi Riyal versus >5,000.

practiced. Historically, owing to government restrictions and a small immigrant population, FGM/C was not believed to be a common occurrence in Saudi Arabia.<sup>4,5</sup> However, a recent survey documented that 18.2% of women in a Saudi obstetrics and gynecology clinic self-reported having undergone FGM/C as a child.<sup>6</sup>

The physical harms associated with FGM/C have been found to include immediate harms such as bleeding, gynecological problems such as urinary tract infections and bacterial vaginosis, and obstetric and sexual complications.<sup>7,8</sup> A systematic review found that compared with women without FGM/C, women with FGM/C were more likely to report dyspareunia, no sexual desire, and less sexual satisfaction.<sup>8</sup> However, although the consequences of FGM/C on sexual functioning are beginning to be understood, much less is known about the possible consequences of FGM/C on female genital self-image.

The concept of genital self-image is the person's feelings and thoughts about her/his genital organs and was first introduced by Waltner more than 30 years ago.<sup>9</sup> In women, genital self-image it is routinely measured by the female genital self-image scale (FGSIS), an easy-to-administer 7-question scale.<sup>10</sup> Research shows FGSIS scores correlate with Female Sexual Function Index

(FSFI) domain scores related to arousal, lubrication, orgasm, satisfaction, and pain domains and total score.<sup>10</sup> The FGSIS has been found to reflect not only female sexual function but also sexual behavior and sexual and genital healthcare behaviors. Cross-cultural comparisons support the validity of the FGSIS,<sup>11,12</sup> although correlation with the desire domain of the FSFI has varied by cultural setting.<sup>10</sup>

To expand research on the consequences of FGM/C in general and better understand the possible consequences of FGM/C on female genital self-image specifically, we assessed whether women with and without FGM/C differed with regard to female genital self-image, using the FGSIS.

## MATERIALS AND METHODS

The study was approved by the King Abdulaziz University Hospital (KAUH) Institutional Review Board and performed in accordance with relevant guidelines and regulations in Saudi Arabia.<sup>13</sup> All women seen at the King Abdulaziz University Hospital obstetrics and gynecology clinic from December 2016 to August 2017 were invited to participate in a survey. Eligibility criteria included being 18–75 years of age and able to read and speak Arabic. Trained clinic staff provided an oral and written

**Table 2.** Multiple regression on FGSIS

Variables	$\beta$	B	Std.Error	95% CI	t	P-value
FGM/C status	.028	.346	.416	-.472 to 1.163	.830	.4107
Age	.019	.010	.020	-.029 to .049	.499	.618
Nationality	.025	.290	.436	-.566 to 1.146	.665	.506
Marital status	-.019	-.184	.355	-.882 to .512	-.519	.604
Education	.134	1.292	.352	.600 to 1.983	3.667	.000
Employment	.012	.121	.366	-.598 to .840	.330	.741
Income	.041	.449	.425	-.385 to 1.282	1.059	.291

CI = confidence interval; FGM/C = female genital mutilation/cutting; FGSIS = female genital self-image scale.

explanation of the study to each woman, and women who consented to take part signed an informed consent form. The same clinic staff then administered the survey in a private room at the clinic, answered any questions the participants had, and submitted the completed surveys to team members for data entry.

The self-complete survey included 30 questions and took about 8 minutes to complete. The survey asked about demographics (age, nationality, religion, marital status, education), FGM/C status and characteristics (extent of flesh removed or sewing, practitioner, instrument used), and attitudes toward the practice (should be stopped, should be continued, reasons for continuation). The great majority of the FGM/C-specific questions were taken from the Demographic and Health Survey module on FGM/C.<sup>14</sup> The survey also included the 7-item FGSIS questionnaire in Arabic language. Each question was answered using a 1 (strongly disagree) to 4 (strongly agree) scale, with a possible score range of 7 to 28 with higher score indicating a more positive genital self-image.<sup>10</sup>

Statistical analyses were performed using the Statistical Package for the Social Sciences (SPSS Inc, Chicago, IL), version 24.0. Continuous variables are reported as the mean  $\pm$  SD, and count data are expressed as a number and percentage. We calculated Cronbach's alpha to assess the internal consistency of the FGSIS items and their ability to measure the same underlying concept. A value greater than 0.7 is considered acceptable, 0.8–0.9 good, and  $\geq 0.9$  excellent. We performed one-way analysis of variance (ANOVA) to compare FGSIS scores between the 2 groups of women. Pearson correlation was used to test the correlation between age and FGSIS score. We used multivariate regression analysis to identify whether FGM/C was an independent predictor of the FGSIS score, with age, nationality, marital status, level of education, employment status, and level of income as covariates.  $P < .05$  was considered statistically significant.

## RESULTS

Of the 1,000 consecutive women invited to participate, 963 (96.3%) consented to complete the survey. These patients have been characterized in a previous report.<sup>6</sup> None of the women were pregnant. In brief, the mean age was  $28.9 \pm 9.1$  years, all

were Muslim, and 79.1% were Saudi (Table 1). Half of the women (51.9%) were married, divorced, or widowed; 58.6% had some university education; and 28.5% had part-time or full-time employment, whereas the remaining women (71.5%) were students, retired, or stay-at-home housewives. Finally, 3 quarters of the participants (75.1%) had a monthly income of more than 5,000 Saudi Riyal. With regard to FGM/C status, 18.2% self-reported having FGM/C (type I or II  $n = 37$ , type III  $n = 11$ , type IV  $n = 46$ , unsure  $n = 81$ ), 78.5% reported they did not have FGM, and 3.3% did not know. The majority of the women reported no complications related to their FGM/C procedure (88.6%) and thought the ritual practice of FGM should not be continued (68.7%). The procedure was performed within 1 week after birth in 57.7%, at an age of  $6.9 \pm 0.1$  years in 24% and was unknown in 18.3%.

Cronbach's alpha for the FGSIS of all women tested was 0.871 (0.880 based on standardized items). The mean FGSIS score of all women was  $21.5 \pm 4.76$  ( $n = 963$ ). Women who were unsure of their cutting status (3.3%) were excluded from further analyses. Women who self-identified having undergone FGM/C had a mean score of  $21.3 \pm 4.6$  ( $n = 175$ ), whereas those without FGM/C had a mean score of  $21.6 \pm 4.8$  ( $n = 756$ ) (ANOVA  $F = 0.80$ ,  $P = .371$ ). Furthermore, the univariate analyses showed that there was no statistically significant correlation between FGSIS score and patient age (Pearson correlation coefficient  $r = 0.013$ ,  $P = .682$ ), marriage status (mean score  $21.6 \pm 5.0$ ,  $n = 465$  married vs  $21.4 \pm 4.6$ ,  $n = 498$  not married, ANOVA  $F = 0.22$ ,  $P = .641$ ), and employment ( $21.9 \pm 5.0$ ,  $n = 275$  part-time or full-time employed vs  $21.4 \pm 4.7$ ,  $n = 688$  retired, student, and housewife, ANOVA  $F = 1.71$ ,  $P = .192$ ). Similarly, there was no statistically significant difference in FGSIS score between Saudi women and non-Saudi women ( $21.6 \pm$ , the mean FGSIS scores were Sudanese  $21.6 \pm 4.9$  ( $n = 17$ ), Egyptian  $23.0 \pm 3.35$  ( $n = 11$ ), Yemeni  $21.4 \pm 4.06$  ( $n = 89$ ), and Somali  $19.4 \pm 5.11$  ( $n = 12$ )). However, there was a statistically significant correlation between FGSIS and education ( $22.1 \pm 4.49$ ,  $n = 564$  some university education vs  $20.8 \pm 5.03$ ,  $n = 399$  no university education, ANOVA  $F = 18.43$ ,  $P < .0001$ ) and income ( $21.8 \pm 4.6$ ,  $n = 723$  income greater than 5,000 Saudi Riyal vs  $20.9 \pm 5.2$ ,  $n = 240$  less than 5,000 Saudi Riyal,

ANOVA  $F = 6.23$ ,  $P = .012$ ). As seen in Table 2, in the multivariate regression analysis, only level of education remained independently associated with the FGSIS score ( $P < .0001$ ).

## DISCUSSION

The perception of personal genital appearance is a basic self-view that reflects on one's ability to have meaningful sexual experiences.<sup>15</sup> A significant relationship between positive genital self-image and positive sexual function has been reported.<sup>16,17</sup> We evaluated the FGSIS score among an unselected group of women attending our obstetrics and gynecology clinic, some of whom had undergone FGM/C as a child.<sup>6</sup> To fill an important research gap, our main aim was to assess whether women with and without FGM/C differed with regard to female genital self-image. We found that women with and without FGM/C had similar mean FGSIS scores (21.3 and 21.6), which were neither statistically nor clinically different. To our knowledge, this is one of the first studies to assess the possible relationship between FGM/C and genital self-image. However, it is an important concern, as women with FGM/C have increased risk of sexual complications<sup>8</sup> and female sexual function is found to be significantly related to female genital self-image.<sup>11</sup> Research suggests that women with greater genital satisfaction are more sexually active and have greater frequency of sexual activity than women with a lower level of satisfaction.<sup>18</sup> Furthermore, a recent case report on a woman with FGM/C type II found a worsening in genital self-image after clitoral reconstruction.<sup>19</sup> Although our results provide preliminary evidence of no meaningful relationship between FGM/C and genital self-image, more research is needed about this possible link. The effect of FGM/C on sexual function and opinion of genital appearance is not well studied.<sup>20,21</sup> On the other hand, our results strengthen previous research concerning genital self-image and sociodemographic characteristics, as we found FGSIS score was associated with higher education. In previous research, female genital self-image satisfaction has been reported to be correlated with increasing age, race, and higher education.<sup>18</sup>

There are some limitations to this study. It was an exploratory cross-sectional study, thus no conclusions about causation can be drawn. We did not assess sexual function, and data are self-reported, including FGM/C type, and may be subject to both recall and reporting bias. The reliability of self-reported type of FGM/C is thought to be low, with a bias to underreporting<sup>21,22</sup> On the other hand, we used a validated, reliability-tested scale, trained clinic staff, multivariate analyses, and recruited a large sample.

## CONCLUSIONS

Women with and without FGM/C in a Saudi Arabian clinic had a similarly positive genital self-image. Only level of education was independently associated with FGSIS score.

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## STATEMENT OF AUTHORSHIP

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