Symptoms of Posttraumatic Stress Disorder After Ritual Female Genital Surgery Among Bedouin in Israel: Myth or Reality?

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Objective: Ritual female genital surgery (RFGS), or female circumcision, is common among certain ethnic groups in Asia and Africa and describes a range of practices involving complete or partial removal of the female external genitalia for nonmedical reasons. Several studies in African populations, in which more severe forms of RFGS are performed, reported an increased prevalence of posttraumatic stress disorder and other psychiatric syndromes among circumcised women than among uncircumcised controls. Among the Bedouin population in southern Israel, RFGS has become a symbolic operation without major mutilation. However, in a study performed in 1999, Bedouin women after RFGS reported difficulties in mother-daughter relationships and trust. This pilot study assessed the mental health of Bedouin women from southern Israel after RFGS compared to age-matched controls without RFGS.

Method: The psychological impact of RFGS was assessed in 19 circumcised Bedouin women compared to 18 age-matched controls. The Post Traumatic Stress Disorder Scale, Symptom Checklist, Impact of Event Scale, and a demographics and background questionnaire were used to assess traumatization and psychiatric illnesses. The study was conducted from March to July 2007.

Results: No statistically significant differences were found between the 2 groups.

Conclusions: The prevailing procedure of RFGS among the Bedouin population of southern Israel had no apparent effect on mental health.

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Ritual female genital surgery (RFGS), or female circumcision, is performed more widely than is recognized in a wide range of ethnic groups and religious faiths. It is common in many parts of the world, especially among certain ethnic groups in Asia and Africa, including the Ethiopian Falashas, Australian Aborigines, and Russian Skopotozy, a Christian sect that quotes Matthew.[1,2]

The term is used to describe a range of practices involving complete or partial removal or alteration of the external genitalia for nonmedical reasons. The degree of mutilation ranges from clitoridectomy and removal of the labia to small, symbolic, superficial scars on the labia. Lightfoot-Klein[3] described the most extreme form of RFGS, called the pharaonic operation or infibulation, in the Sudan, in which the clitoris is removed along with the labia minora and at least two thirds of the labia majora. A less drastic form of RFGS is the Sunni type, which involves removal of the prepuce of the clitoris, similar to male circumcision. There are no clear-cut cultural patterns of use of either of the 2 forms, and intermediate forms are common.

A number of assumptions are usually associated with the practice: that it is an ancient and deeply entrenched practice and that it is associated with initiation and with patriarchy. However, in even a cursory review of the literature, the lack of consensus in terminology and in understanding the nature and meaning of the practice becomes readily apparent.

The age at which women undergo RFGS varies across and within countries. While most of the operations in Africa occur before the end of childhood (mainly between 4 and 10 years of age), it is variously performed during infancy, at puberty, upon contracting marriage, in the seventh month of the first pregnancy, or after the birth of the first child.

There are 2 ethnic groups in Israel that are associated with RFGS: Ethiopian Jews and the Bedouin of southern Israel. Physical examination of 113 Ethiopian Jewish immigrant women in Israel found a variety of lesions.[4] About a third (27%) had undergone total or partial clitoral amputation. These women reported that ritual female genital surgery was normative in their culture in Ethiopia, but expressed no desire to continue the custom in Israel.[4]

This finding contrasts with Muslim Bedouin women in Israel, who were reported to regard ritual female genital surgery as an important part of their cultural identity.[5] In the Bedouin population of southern Israel, the age for RFGS is 12 to 17 years, i.e., after menarche but before marriage. The most recent study performed among the Bedouin population of southern Israel suggests that RFGS in this ethnic group has become a symbolic operation, rather than the mutilative pharaonic circumcision practiced in much of Africa.[5] In this survey, a significant incidence of RFGS was found both by verbal account and by physical examination. Reports from a recently completed study[6] at our center suggest that the practice has significantly decreased over the past 10 years and to date has virtually disappeared among the Bedouin in southern Israel.

While the general medical consequences have been broadly investigated, the impact of RFGS on the women's mental health has not been studied extensively. Several case studies report cases of depression, phobias, and sexual dysfunction disorders among women after RFGS.[7–9] The fact that this is a culture-embedded ritual practice might act to mitigate high rates of mental disturbances on the one hand, and on the other hand, might engender a reluctance to report disturbances.

Behrendt and Moritz[8] have reported a significantly higher prevalence of posttraumatic stress disorder (PTSD) (30.4%) and other psychiatric syndromes (47.9%) among 23 Senegalese women who underwent RFGS, compared to uncircumcised controls. The findings in the study performed by al-Krenawi and Wiesel-Lev in 1999[7] indicated that Bedouin women after RFGS had difficulties in mother-daughter relationships and trust.

This study set out to assess the prevalence of PTSD symptoms and other psychiatric complaints among Bedouin women from southern Israel who had undergone RFGS compared to an age-matched control group of Bedouin women without RFGS.

METHOD

The study, conducted from March to July 2007, underwent the standard procedure for approval by the Helsinki Ethics Committee of the Ben-Gurion University of the Negev.

Women aged 30–70 years who were familiar with RFGS were recruited either through their family practitioner or from community centers. Oral informed consent was obtained after a detailed explanation of the purpose and structure of the study, with emphasis on the ethical norms of anonymity and confidentiality, since written informed consent requires literacy and might have biased the study population, many of whom were illiterate.

Data Collection and Sample

Thirty-seven women enrolled in the study, 19 in the RFGS group and 18 in the control group. All were Muslims, belonging to 4 different tribes. Women aged 31–77 years who had experienced RFGS were recruited either through their family practitioner or from community centers as individuals willing to cooperate. The control group consisted of age-matched Bedouin women (aged 30–81 years) without RFGS. Women with a history of mental illness were excluded from this study.

The participants were interviewed in Arabic by a trained female social worker under the supervision of a female psychiatrist. Consenting participants were asked to complete assessment scales translated into Arabic. The questionnaires were read to the subjects by the interviewer, who explained variables and assisted in answering the questions where needed. The interviewer thus ensured that all subjects clearly understood the contents of each item.

Study Instruments

Demographics and background questionnaire. A demographics and background questionnaire was administered, specifying participants' personal background, marital status, education, place of residence, and the types of trauma, if any, experienced in the past.

The Post Traumatic Stress Disorder Scale. The PTSD Inventory[10] is a psychometrically reliable, 17-item self-report measure of PTSD severity according to *the Diagnostic and Statistical Manual of Mental Disorders*, Third Edition, Revised (DSM-III-R) criteria, adapted from Horowitz et al.[11] Each item is rated on a 4-point scale reflecting the degree to which each symptom has bothered the subject in the past month (0 = not at all and 3 = almost always). This measure yields a total score, as well as subscores for the reexperiencing, avoidance, and hyperarousal symptom clusters. To obtain a DSM-compatible diagnosis of PTSD from the scale, the following is required: at least 1 reexperiencing symptom (criterion B), at least 3 avoidance symptoms (criterion C), and at least 2 arousal symptoms (criterion D) must be present with a score of 1 or above. Higher scores indicate more severe PTSD symptoms.

The Symptom Checklist-90. The Symptom Checklist-90 (SCL-90)[12,13] comprises 90 items measuring 9 clinical subscales. The SCL-90 was developed as a descriptive measure of general psychiatric symptom severity and has been found to be useful in the assessment of neurotic symptoms.[14] The clinical subscales are somatization (12 items), obsessive-compulsive (10 items), interpersonal sensitivity (9 items), depression (13 items), anxiety (10 items), hostility (6 items), phobic anxiety (7 items), paranoid ideation (6 items), and psychoticism (10 items). Subjects are required to rate specific complaints on a 5-point Likert scale running from 0 = never to 4 = frequently. A higher score indicates greater distress.

Table 1. Demographic and Clinical Characteristics of Bedouin Women With and Without Ritual Female Genital Surgery (RFGS)

Characteristic	Bedouin Women With RFGS (N = 19)	Bedouin Women Without RFGS (N = 18)
Age, mean ± SD, y	48.1 ± 12.56	50.9 ± 12.56
Marital status, N (%)		
Married	12 (63.2)	12 (66.7)
Single	1 (5.3)	0 (0)
Divorced	0 (0)	2 (11.1)
Widowed	5 (26.3)	3 (16.7)
Separated	1 (5.2)	1 (5.6)
No. of children, mean ± SD	7.2 ± 5.52	8.3 ± 5.54
Employed, N (%)	0 (0)	0 (0)
Exposed to traumatic event, mean ± SD	10 ± 0.51	9 ± 0.51
No. of subjects with chronic physical illness, mean ± SD	8 ± 0.5	8 ± 0.51
Socioeconomic level, N (%)		
Low	12 (63.2)	12 (66.7)
Middle	7 (36.8)	6 (33.3)
Education, N (%)		
None	12 (63.2)	10 (55.6)
Primary	4 (21.1)	6 (33.3)
Secondary	1 (5.3)	1 (5.6)
College/university	2 (10.5)	1 (5.6)

Impact of Event Scale. The Impact of Event Scale (IES)[11,15] is a self-report scale with 2 subscales—"intrusion" and "avoidance." Seven of the items reflect the presence of intrusive trauma-related thoughts, images, feelings, or dreams, and 8 items reflect the tendency to deny, repress, or avoid memories or situations related to the trauma.

Quality of life. Quality of life (QOL) was assessed by the QOL-16 questionnaire, a generic instrument for measuring QOL.[16] It contains 16 items covering various aspects of life, such as health, job, independence, sports, learning, and relationships with family and friends. Subjects are asked to rate their level of satisfaction using a 7-point scale, with 1 = highly dissatisfied and 7 = highly satisfied. Each score is normalized to range from 0 to 10, with 0 representing lowest satisfaction. The final score is then obtained as the mean of the 16 items. The QOL-16 scale was translated and validated by us in a Hebrew version.[17]

In order to minimize biases stemming from cultural, literacy, and personal factors, the Arabic word *purification* was used to describe the procedure, rather than a vague clinical term such as RFGS or anatomical terms.

Data Analysis

Means, standard deviations, and frequencies were computed to summarize the distribution of values for each variable. Age, years of education, family status, and number of years in Israel were analyzed as continuous data and compared by 1-way analysis of variance.

Chi-square tests were used for categorical data such as sex, place of birth, and religion.

Table 2. Assessment Outcomes for Bedouin Women With and Without RFGS[a]

Outcome	Bedouin Women Without RFGS (N = 18)	Bedouin Women With RFGS (N = 19)
PTSD Scale score, mean ± SD		
Intrusive symptoms	11.2 ± 1.9	13.8 ± 2.7
Avoidance	20.6 ± 3.6	23.5 ± 3.7
Hyperarousal	16.4 ± 3.1	19.9 ± 3.4
Total	48.1 ± 8.2	57.3 ± 9.5
PTSD prevalence, N (%)	2 (11.1)	2 (10.5)
SCL-90 subscale score, mean ± SD		
Somatization	1.6 ± 0.3	1.6 ± 0.3
Obsessive-compulsive	1.4 ± 0.3	1.6 ± 0.3
Interpersonal sensitivity	1.1 ± 0.3	1.1 ± 0.2
Depression	1.8 ± 0.4	1.6 ± 0.4
Anxiety	1.4 ± 0.3	1.3 ± 0.3
Hostility	0.8 ± 0.2	0.7 ± 0.1
Phobic anxiety	0.8 ± 0.2	0.8 ± 0.3
Paranoid ideation	0.7 ± 0.2	0.7 ± 0.1
Psychoticism	0.5 ± 0.1	0.5 ± 0.2
IES score, mean ± SD		
Intrusive symptoms	8.4 ± 2.3	10.0 ± 2.7
Avoidance	9.8 ± 2.7	11.6 ± 3.2
Total	18.2 ± 4.9	21.6 ± 5.7
QOL-16 score, mean ± SD	73.3 ± 6.6	69.5 ± 6.7

[a]There were no statistically significant differences between the 2 groups in the scores of any of the assessment measures.
Abbreviations: ANOVA = analysis of variance, IES = Impact of Event Scale, NS = not significant, PTSD = posttraumatic stress disorder, QOL-16 = 16-item quality of life questionnaire, RFGS = ritual female genital surgery, SCL-90 = Symptom Checklist-90.

RESULTS

Demographic Data

The demographic characteristics of the participants are summarized in Table 1. There were no statistically significant differences in marital status, number of children, educational level, chronic physical problems, and history of exposure to traumatic events between the groups.

A similar number of women (10 in each group) reported stressful life events such as a violence in the family, loss of close relatives, infidelity of spouse, and long-term separation from relatives due to marital customs.

Assessment Scales

There were no statistically significant differences in the scores on the QOL-16 questionnaire, SCL-90, IES, and PTSD Scale between the groups (Table 2).

DISCUSSION

This age-matched case-control study of southern Israel Bedouin women after RFGS compared to women without RFGS revealed no evidence of PTSD symptoms on the IES or PTSD Scale or of other forms of psychopathology according to the SCL-90 subscales, such as

anxiety or depression symptoms. The lack of significant difference between the study group and controls in terms of marital status and motherhood appear to indicate that RFGS had little or no effect on the women's conception of themselves as wives and mothers.

The study by Asali et al.[5] suggested that RFGS among the Bedouin of southern Israel has become a symbolic procedure, unlike the previously practiced pharaonic circumcision, which is still practiced in much of Africa. The prevailing attitude of the Bedouin women toward the procedure is that the purpose of this operation is not to decrease sexuality, but to enhance reproductive ability and improve quality of cooking. This can be one of the possible explanations for the absence of posttraumatic symptoms or symptoms of other mental disorders. Another possibility is that the women with RFGS had undergone the procedure more than 10 years previously and had adapted. Last, although the questionnaires were completed in privacy and anonymously, the women may have felt uneasy revealing symptoms for sociocultural reasons.

According to the findings of a recently completed study[6] in our center, RFGS is a disappearing custom and no new cases of this procedure have been found among Bedouin women younger than 30 years old.

There are several limitations of our study that deserve note. No physical examination was conducted. We did not assess the attitudes of the women toward the RFGS. All these aspects were studied in the study performed by Asali et al.,[5] and most of the women in that research stated that they will continue practicing RFGS on their daughters. Two of the participants did not wish to perform this operation on their daughters in the future. They were younger and better educated than others.[5] Since most of the participants in our study were illiterate or at most primary school graduates, the sample may not be fully representative of the Bedouin women in southern Israel. It is important to note that in this study, women were not asked to describe their beliefs about RFGS or to recount details regarding their own RFGS.

CONCLUSIONS

Whereas previous studies have suggested that RFGS is associated with symptoms of PTSD, anxiety disorders, and depression, this randomly selected sample of 19 Bedouin women after RFGS in southern Israel did not differ from age-matched controls in terms of any of the above.

The prevailing procedure among this population is nonmutilative and represents a symbolic cultural ritual, which had no apparent effect on motherhood or number of children and engendered no significant rates of trauma-related psychopathology. Since the population included few young and literate women, data from these women would complement the present findings regarding contemporary attitudes and consequences of ritual female circumcision.

The implication is that the symbolic procedure performed among the Bedouin in southern Israel serves the cultural purpose of the ritual adequately, while not causing mental distress or disorder. The report by Hassanin et al.[18] of the difficulties encountered in attempting to ban the more mutilative procedure in Egypt raises the question of whether it might be possible to lobby for a less mutilative, more symbolic procedure, thereby retaining and respecting the cultural and religious importance while reducing the risk of psychopathology.

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