

Screening of sexual dysfunction in Saudi women before and after the age of 40 years

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Summary

Objective: The aim was to assess sexual performance by screening Saudi women before and after the age of 40 years. **Materials and Methods:** A cross-sectional study (March-May 2013), conducted at King Abdulaziz University Hospital (KAUH), with two groups of women under 40 years of age and aged 40 or more years, were randomly selected from OPD. Ethical committee approved the study. After verbal consent, one-paper self-administered questionnaire was distributed, and filled in anonymously and privately. Questionnaire included demographic data, the six-item version of female sexual function index (FSFI) to assess desire, lubricants, orgasm, satisfaction, and pain. If score was 19 or less, it meant that women needed further investigations (full assessment using FSFI-19). **Results:** Out of 194, 49.5% (96) were over 40 years of age and 50.5% (98) were under 40 years of age. Answering the six questions regarding sexual dysfunction indicated that women > 40 years had sexual dysfunction more than women < 40 (statistically significant). A score of less than 19 was found to be statistically significant in women > 40 years. Post-menopausal women, diabetics, women with urogynecological symptoms and/or psychological disorder required further evaluation. **Discussion:** Using the six-item version of FSFI and calculating a score less than 19 for screening, women aged more than 40 years, reduction in estrogen, diabetes, urogynecological symptoms, and psychological disorder were all found to be important factors affecting female sexual dysfunction.

Key words: Female Sexual Dysfunction, Screening Saudi.

Introduction

Women commonly have sexual problems; about 40% of women in the United States have some sexual problems and 12% report dyspareunia [1]. Loss of sexual desire and arousal, difficulty to reach orgasm, and distressing pain during intercourse are describe as female sexual dysfunction [2]. Sexual dysfunction may begin as a female becomes sexually active or she may acquire this after a period of normal sexual performance. Phases of the female sexual cycle may have problems and sexual response may be interpersonal and sexual activity be initiated not only by desire but also by other factors such as emotional closeness [3].

There is a local belief that Saudi women at the age 40 have sexual dysfunction, and the aim of the present study was to assess sexual performance by screening Saudi women before and after the age of 40 years, and if there are any other important factors.

Materials and Methods

A cross-sectional study conducted at King Abdulaziz University Hospital (KAUH) between March 3rd, 2013 and May 3rd, 2013 involved two groups of the population; women under the age of 40 years and women with an age of 40 years and more. The authors chose the age of 40 because there is a local belief that most Saudi women have sexual dysfunction after the age of 40.

Candidates were randomly selected from outpatient's clinic. Simple random sampling used in total, 100 candidates selected in each group. KAUH ethical committee approved the study. Inclusion criteria were the following: adult female, married, and willing to participate in the study. Exclusion criteria were the following: pre-menarche girls, single status, and women that refused to participate.

Sexual issues are very sensitive so the proposal of the study was explained to the subjects and were confidentiality assured. Verbal consent was obtained, and one-paper self-administered questionnaire was distributed by physicians participating in the study, the subjects were asked to fill it out anonymously and privately, and to return it once completed.

The questionnaire was composed of demographic data age, parity, continuing to have a period, use of oral contraceptive pills, history of medical or surgical disease, history of urinary incontinence, history of prolapse, and history of psychological disorders.

The six-item version of the female sexual function index (FSFI) questionnaire was used to assess the desire, lubricants, orgasm, satisfaction, and pain. It was composed of six simple questions, which only took a few minutes to complete. If the calculated score was found to be 19 or less, this meant that females required further investigations and a full assessment using FSFI-19 were indicated [4].

To assess desire there were two questions, the first was the degree of sexual desire: 1 = almost never; 2 = few times; 3 = sometimes; 4 = most of the time; and 5 = almost always. The second was the level of sexual interest: 1 = very low; 2 = low; 3 = moderate; 4 = high; and 5 = very high.

Natural lubrication, orgasm, satisfaction, and pain were scored from 1 to 5. Lubricant use during sex: 1 = never; 2 = few times; 3

Table 1. — The two groups of females divided according to their age.

Age (years)	Frequency	Percentage
> 40	96	49.5%
< 40	98	50.0%
Total	194	100%

Table 2. — The parity of the two groups of females.

Parity	Age > 40	Age < 40	Total
1-3	22	52	74
4-6	44	33	77
> 6	22	11	33
0	9	2	10
Total	96	98	194

= sometimes; 4 = most of the time; and 5 = always. Orgasm: 1 = very dissatisfied; 2 = moderately dissatisfied; 3 = equally dissatisfied; 4 = moderately satisfied; and 5 = very satisfied. Sexual satisfaction: 1 = very dissatisfied; 2 = moderately dissatisfied; 3 = equally dissatisfied; 4 = moderately satisfied; and 5 = very satisfied. Pain: 1 = always discomfort; 2 = most of the time; 3 = sometimes; 4 = few times; and 5 = never.

Statistical analysis

The Statistical Package for the Social Sciences (PC SPSS version 20) was used to analyze data using chi-square test. The frequency of occurrence of different variables was calculated with a *p*-value less than 0.01, and odds ratio and 95% confidence interval were used to compare variables with a score less than 19.

Results

Participants in this study were 194 Saudi women (six refused to participate). Out of 194 subjects, 49.5% (96) were above of 40 years of age and 50.5% (98) were less than 40 years of age (Table 1). Only one patient less than 40 years of age, had no period in contrast to 56 patients above the age of 40 that were menopausal and with parity (Table 2).

The answers of the six questions regarding female sexual dysfunction indicated that women aged more than 40 years had significant sexual dysfunction compared to women under the age of 40 (Table 3).

Chi-square used to compare the age with the scores of less than 19 in 52 out 96 women aged 40 or more and only 13 out 98 in women of less than 40 years showed that this was statistically significant ($p = 0.001$), and 35/57 of menopausal female had a score of less than 19 when compare with non-menopausal only (30/137) group; this was statistically significant with ($p = 0.001$) (Table 4).

When the odds ratio and 95% confidence interval were utilized to analyze the scores of less than 19 in the six-item version of the FSFI questionnaire, age 40 years or more, menopause and non-menopause, history of medical disease, and surgical operation, prolapse, urinary stress incontinence, and psychological disturbance, were not found to be statistically significant.

Table 3. — The answers of the six questions of female sexual dysfunction in women above and below the age of 40 years.

Desire						
Age	A. never	F. times	Some times	Always	A. always	Total
> 40	10	27	31	19	9	96
< 40	0	2	19	66	11	98
Total	10	29	50	85	20	194

Level						
Age	Very low	Low	Moderate	High	V. high	Total
> 40	11	12	55	16	2	96
< 40	0	2	33	60	3	98
Total	11	14	88	76	5	194

Lubricant						
Age	Never	Few	Some	Most	Always	Total
> 40	1	18	29	39	9	96
< 40	0	0	18	78	2	98
Total	1	18	47	117	11	194

Orgasm						
Age	V. dissat.	M. dissat.	Equal.	M. sat.	Very sat.	Total
> 40	2	23	41	22	8	96
< 40	0	1	15	80	2	98
Total	2	24	56	102	10	194

Satisfaction						
Age	V. dissat.	M. dissat.	Equal.	M. sat.	Very sat.	Total
> 40	4	13	39	33	7	96
< 40	0	2	10	83	3	98
Total	4	15	49	116	10	194

Pain						
Age	Always	Most	Some	Few	Never	Total
> 40	29	44	13	6	4	96
< 40	55	39	3	0	1	98
Total	84	83	16	6	5	194

> 40: more than 40 years of age; < 40: less than 40 years of age.

A. never: almost never; F. times: few times; Sometimes: sometimes; Always: always; A. always: almost always; V. dissat.: very dissatisfied; M. dissat.: moderately dissatisfied; Equal.: equally satisfied; M. sat.: moderately satisfied; Very sat.: very satisfied.

Discussion

Does the age affect sexual function in women? This is a controversial issue. Shifren *et al.* [1] found that the prevalence of sexual problems associated with distress was highest in women aged 45 to 64 years (15%), lowest in women 65 years or older (9%), and intermediate in women aged 18 to 44 years (11%) [5]. In the present study women above the age of 40 years scored lower in all six parameters analyzed than women below the age of 40 years and it was statistically significant. When using the six parameters as screening, women above the age of 40 scored less than 19 in 52 out of 96 and required further evaluation.

Table 4. — Factors affecting sexual dysfunction with a score less than 19 (odds ratio and 95% confidence interval).

	Score > 19	< 19	Total	Odds ratio (95% Confidence interval)
Age				
> 40	44	52	96	0.129 (0.064 - 0.263) <i>p</i> = 0.001
< 40	85	13	98	
Total	129	65	194	
Period				
Menopause	22	35	57	0.176 (0.080 - 0.344) <i>p</i> = 0.001
None	107	30	137	
Total	129	65	194	
OCP				
Yes	63	20	83	2.148 (1.144 - 4.032) <i>p</i> = 0.007
No	66	45	111	
Total	129	65	194	
H/o medical				
Yes	28	40	68	0.173 (0.090 - 0.333) <i>p</i> = 0.001
No	101	25	126	
Total	129	65	194	
H/o surgery				
Yes	6	19	25	0.118 (0.044-0.314) <i>p</i> = 0.001
No	123	46	169	
Total	129	65	194	
Incontinence				
Yes	4	12	16	0.141 (0.044 - 0.458) <i>p</i> = 0.001
No	125	53	178	
Total	129	65	194	
H/o prolapse				
Yes	3	6	9	0.234 (0.762 - 0.969) <i>p</i> = 0.032
No	126	59	185	
Total	129	65	194	
H/O psycho				
Yes	3	8	11	0.170 (0.043 - 0.663) <i>p</i> = 0.006
No	126	57	183	
Total	129	65	194	

> 19: score more than 19; < 19: score less than 19.

Impaired estrogen level in peri- and postmenopausal women can lead to sexual dysfunction, which may result in a reduction in both vulvovaginal lubrication and vasocongestion during sexual arousal, also vaginal atrophy, and an increased likelihood of sexual pain [6]. In the present study, 35 out of 57 postmenopausal female scored less than 19 compared to only 30 out 137 perimenopausal women. In a longitudinal cohort study, perimenopausal women were monitored according to hormone levels and with a sexuality questionnaire annually for up to eight years and it demonstrated that declining levels of estradiol were associated to decreases in libido and sexual responsivity [7].

Female sexual dysfunction is one of the complications of diabetes in women. An article published in Chinese showed that risk factors of sexual dysfunction in diabetic women are vascular disease, neuropathy, psychological disorder, and endocrine problems [8]. In the present study, diabetic patients scored less 19 in 40/68.

High percentage of patients with urogynecological symptoms suffer from sexual dysfunction and it is our responsibility

to provide assistance and education in this type of patients [9]. Fourteen out of 19 women with urogynecological symptoms scored less than 19.

The causes of sexual dysfunction include psychological disorders as depression or anxiety, unstable relationship, stress, fatigue, history of sexual or physical abuse, medications, or conditions that make sexual activity painful, such as endometriosis or atrophic vaginitis [10]. In the present study women with psychological disorders scored less than 19 in eight out of 11, when compared to women with no evidence of psychological disorder and this was statistically significant with a *p*-value of 0.007.

Conclusion

By using the six-item version of the FSFI and calculating a score of less than 19 as screening, age more than 40 years, reduction in estrogen, use of oral contraceptive pills, past medical and surgical disease, urogynecological symptoms, and psychological disorders were found to be important factors affecting female sexual dysfunction but not statistically significant.

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