



Prevalence of Female Sexual Dysfunction and Barriers to Seeking Primary Health Care Treatment in an Arab Male-Centered Regime

Mariam Alselaiti^{1*}, Maha A. Saleh², Hana Muhammed³, Elham Attallah⁴, Nawal Dayoub⁵

¹Primary Healthcare, Bahrain Defense Force Hospital, Riffa, Bahrain; ²Meral Medical Center, Muharraq, Bahrain; ³Muharraq Health Center, Muharraq, Bahrain; ⁴National Bank of Bahrain Health Center, Arad, Bahrain; ⁵Department of Obstetrics and Gynecology, Bahrain Defense Force Hospital, Riffa, Bahrain

Abstract

BACKGROUND: The prevalence of female sexual dysfunction (FSD) is a common health issue and women living in male-centered regimes are more vulnerable to have FSD.

AIM: This study was conducted to estimate the prevalence of FSD in Bahrain, which is male-centered and impacted with cultural and Islamic religious standards, and the associated variables with FSD, including the barriers to seeking medical help from health-care professionals.

METHODS: This study was a cross-sectional design based on interview questions of 360 married women between 18 and 60 years of age who randomly visited one of three health clinics in Bahrain. The prevalence of FSD in Bahrain and the variables associated with it was analyzed using Chi-square and multivariate logistic regression.

RESULTS: Of 360 enrolled women, 43% reported having sexual problems during intercourse ($p < 0.05$, 95% CI 38.1–48.6%). Most of the sexual problems were related to having painful intercourse (42%) or low sexual desire (37%). Furthermore, the mean age of females with FSD was significantly higher than females with no FSD ($p < 0.05$). Most importantly, the multinomial logistic regression analysis showed that husband polygamy was linked to FSD with an OR of 2.469 (95% CI 1.218–5.001). On the other hand, females with low to no parity were associated lower rates of FSD with an OR of 0.482 (95% CI 0.252–0.922). Furthermore, more than 96% of females were not asked by their doctor about their sexual problems, and 87% of the participants did not dare to discuss the problem with their doctor.

CONCLUSION: The prevalence of FSD in and the challenges that face women's sexual health in Arab male-centered country were high. FSD was associated with husband polygamy, higher age, and high parity.

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***Correspondence:** Mariam Alselaiti, Primary Healthcare, Bahrain Defense Force Hospital, Riffa, Bahrain. E-mail: mariam.alsulaiti@bdfmedical.org
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Introduction

Sexual health has been developing, especially since the World Health Organization published in 1975 a technical report entitled “Education and treatment in human sexuality” [1]. Since then, it has been recognized that sexual health is fundamental to the overall health and well-being of people, and it is imperative to address sexual health in all communities and clinics. Besides, the ability of individuals to secure sexual health depends on information about sex and sexuality, sexual healthcare, healthy environment, and knowing the risk and diseases that may involve. Thus, a lack of knowledge and guidance may result in sexual dysfunction.

Sexual dysfunction is a problem during any phase of the sexual response cycle that inhibits the individual or couple from experiencing satisfaction from sexual activity. Although some sexual dysfunction disorders overlap between men and women, such as lack of desire, achieving orgasm, and pleasure, females are more affected than men [2]. Furthermore,

the social stigma, misperceptions, discomfort and embarrassment, lack of awareness and knowledge, and the consequence of menopausal transition increase female sexual dysfunction (FSD) [3], [4].

Community studies indicated that the prevalence of one of FSD disorders, low sexual desire, was 27% and 52% among premenopausal women and naturally menopausal women [3]. In a systematic review, the worldwide prevalence of FSD is estimated to be 41% in reproductive women [5]. In the USA, 43% of women had sexual concerns, and 12% reported distressing sexual problems [2], [6]. On the other hand, FSD ranged from 19% to 95% between different populations in Asia, Africa, and South America [7]. It has to be stressed that one of the contributing factors in the wide range of FSD prevalence between populations is the sexual regime.

The sexual regime was classified according to the Global Study of Sexual Attitudes and Behaviors and classified sexual regimes into gender-equal and male-centered sexual regimes. The male-centered was also sub-classified into mixed male-centered and Asian male-centered [8]. However, Asian male-centered

sexual regimes include cultures and some risk factors such as liberal sex, acceptance of pornography, and masturbation that led some to consider such Asian women as non-traditional [9], [10].

Studies on FSD in male-centered, such as in the Middle East countries, where culture and religion have a significant impact, have shown that it is relatively higher than in Europe or North America [7], [8], [10]. Furthermore, women living with social stigma, misperceptions, discomfort and embarrassment, and lack of awareness, and inadequate knowledge, impact their sexual health [4]. Therefore, this study was conducted to study the prevalence of FSD in Bahrain, which is male-centered and impacted with cultural and Islamic religious standards. Furthermore, this study investigated the barriers to seeking medical help from health-care professionals.

Methods

Study design and approval

This study was a cross-sectional design based on interview questions. Beforehand, a study protocol was submitted and approved by the Ministry of Health of Bahrain and approved by the Research and Research Ethics Committee at the Royal Services of Bahrain Defense Force (BDF) Military Hospital BDF/R and REC/2021-537.

Study locations and subjects

This study was conducted in the primary care health centers in the Kingdom of Bahrain. Three health centers were selected (Muharraq Primary care Health Center, National Bank of Bahrain Health Center/Arad, and Hamad Kanoo Health Center).

Female subjects who were visiting a local health center (i.e., random drop-off technique recruitment) were asked if they would like to participate, after a brief introduction about the study. The inclusion criteria were married females, with any nationality (Bahraini or non-Bahraini), and were 18–60 years of age. Females who did not fit the above criteria such as unmarried, widowed or divorced, were excluded from the study. Furthermore, females with psychiatric illness were excluded from the study.

Furthermore, the sample size was calculated to be 350 subjects, based on a 35% probability of FSD in Bahrain, 0.05 error, and 95% confidence interval (95% CI). Therefore, 360 participants were from three centers: Muharraq, NBB Health Center, and Kanoo Health Center, 120 participants from each center. In addition, there were equal representations of Bahraini and non-Bahraini participants.

Interview questions

Initially, a pilot study was conducted in the National Bank of Bahrain Health Center and involved 20 participants in assessing the acceptance, practicality, and ease of questions used. The questions were then modified. The interview questions were divided into three parts: demographic and general health status (seven questions), sexual history (five questions), and access to professional help (six questions). The questions were available in two languages (English and Arabic), and a female investigator was available during the interview asking the question and providing verbal clarification in Arabic or English.

Statistical analysis

Means and standard deviations were used to describe the continuous variable, such as age, whereas the percentages were used to describe the categorical variables. For association analysis, Chi-square analysis was used, and Fisher's exact test was applied when any cells had an expectation of <10. Besides, a two-sided t-test was used for the continuous age variable. Furthermore, multinomial logistic regression analysis was applied for a combination of independent variables and FSD with the calculation of odds ratio (OR) and 95% CI. $p < 0.05$ was considered to be statistically significant. All analyses were performed using SPSS 25 statistical package.

Results

Study population and their FSD

Three hundred and sixty female subjects (180 Bahraini, 180 non-Bahraini) with a mean age of 33.1 (± 9.3) years were enrolled in this study (Table 1). About 50% of the patients were between 30 and 45 years of age and most of the enrolled subjects were homemakers (63%), had children (87%), did not have history of miscarriages (68%), or chronic diseases (84%) (Table 1).

Of these subjects, most of the females (61%), herein, had a frequency of sexual intercourse 2–3 times a week, while 17.5%, 15.3%, and 5.8% of women reported once per week, less than once a week, or daily, respectively. Besides, 43% of women reported to have sexual problems during intercourse ($p < 0.05$, 95% CI 38.1–48.6%) (Table 2). Most of the sexual problems were related to having painful intercourse (42%), or low sexual desire (37%), whereas 11% were related to inability to achieve orgasm, 6% had impaired arousal, and 5% for other reasons. Of these 156 females, 47% found that this sexual problem affected their quality of life (Table 2).

Table 1: Subjects' demographic characteristics

Variable	Frequency (%)
Age (years)	33.1 ± 9.3
Nationality	
Bahraini	180 (50)
Non-bahraini	180 (50)
Patient age (years)	
18–29	144 (40)
30–45	178 (49.4)
46–60	38 (10.6)
Educational level	
Illiterate	13 (3.6)
Primary school	38 (10.6)
Middle school	56 (15.6)
High school	126 (35)
University	127 (35.3)
Work	
Homemaker	226 (62.8)
Working	120 (33.3)
Student	5 (1.4)
Retired	9 (2.5)
Had children	
Yes	312 (86.7)
No	48 (13.3)
Previous miscarriage	
Yes	114 (31.7)
No	246 (68.3)
Husband has second wife (s)	
Yes	41 (11.4)
No	319 (88.6)
Having a chronic disease	
Yes	57 (15.8)
No	303 (84.2)

Variables associated with FSD

The association studies revealed that FSD was related to age and was more common in women aged 46–60 years old ($p < 0.05$) (Table 3). The mean age of females with FSD was significantly higher than females with no FSD ($p < 0.05$). Patients who had less frequent intercourse had more FSD ($p < 0.04$). Furthermore, a history of a previous miscarriage had no effect on FSD, but females with fewer parity had less FSD ($p < 0.05$). Most importantly, it has been observed that a significant relationship between sexual problems with the polygamy, husband having more than one wife ($p < 0.01$) (Table 3). However, polygamy was not associated with specific type of FSD disorder. No correlation with FSD was found between Bahraini and non-Bahraini nationality or having chronic diseases.

Table 2: Sexual history of the female participants

Variable	Frequency (%)
Frequency of sexual intercourse per week	
Less frequent	55 (15.3)
1 time	63 (17.5)
2–3 times	221 (61.4)
Daily	21 (5.8)
Sexual problem during intercourse	
Yes	156 (43.3)
No	204 (56.7)
Sexual problems	
Low sexual desire	57 (36.5)
Painful intercourse	65 (41.7)
Impaired arousal	10 (6.4)
Inability to achieve orgasm	17 (10.9)
Other	7 (4.5)
Is this problem affecting your life quality?	
Yes	74 (47)
No	82 (53)

Variables associated with FSD. FSD: Female sexual dysfunction.

The multinomial logistic regression analysis showed that polygamy is linked to FSD with an OR of 2.469 (95% CI 1.218–5.001) (Table 4). On the other hand, females with low to no parity were associated with lower rates of FSD with OR of 0.482 (95% CI 0.252–0.922).

Table 3: Correlation of variables with female sexual dysfunction in Bahrain

Variable	FSD (n = 156), n (%)	No FSD (n = 204), n (%)	p
Nationality			
Bahraini	82 (45.6)	98 (54.4)	0.395*
Non-bahraini	74 (41.1)	106 (58.9)	
Age (years), mean ± SD	34.1 ± 10.07	31.8 ± 8.4	0.025
Age group (years)			
18–29	59 (41)	85 (59)	0.033*
30–45	73 (41)	105 (59)	
46–60	24 (63.2)	14 (36.8)	
Previous parity			
0–1	34 (32.7)	70 (67.3)	0.029*
2–3	62 (45.9)	73 (54.1)	
4 or more	60 (49.6)	61 (50.4)	
Previous miscarriage			
0–1	138 (43.8)	177 (56.2)	0.89**
2–3	14 (40)	21 (60)	
4 or more	4 (40)	6 (60)	
Husband has second wife (s)	26 (63.4)	15 (36.4)	0.006*
Having a chronic disease	26 (45.6)	31 (54.6)	0.705*
Frequency of sexual intercourse per week			
<1	32 (58.2)	23 (41.8)	0.042**
1	31 (49.2)	32 (50.8)	
2–3	85 (38.1)	136 (61.4)	
Daily	8 (38.1)	13 (61.9)	

*Chi-square, **Fisher's exact test. FSD: Female sexual dysfunction, SD: Standard deviation.

Furthermore, the age group of 30–45 years had significantly less chance to have FSD in comparison to the 46–60 years of age with an OR of 0.454 ($p < 0.05$, 95% CI 0.209–0.986) (Table 4). When only age level and polygamy variables were analyzed, both younger age groups, 18–29 and 30–45 years, had significantly less chance to have FSD in comparison to the 46–60 years of age group ($p < 0.05$).

Table 4: Multinomial logistic regression of predictive variables and female sexual dysfunction

Variable	OR	95% CI	p
Age group (years)			
18–29	0.757	0.316–1.812	0.532
30–45	0.454	0.209–0.986	0.046
46–60	Reference	Reference	
Previous parity			
0–1	0.482	0.252–0.922	0.027
2–3	0.929	0.536–1.609	0.792
4 or more	Reference	Reference	
Husband has second wife (s)	2.469	1.218–5.001	0.012
Frequency of sexual intercourse per week			
<1	1.302	0.609–2.787	0.796
1	Reference	Reference	-
2–3	0.670	0.367–1.225	0.194
Daily	0.627	0.213–1.848	0.397

OR: Odds ratio, CI: Confidence interval.

Access to professional help

For those who had FSD, participants answered five questions on access to professional help. More than 96% of females were not asked by their doctor about their sexual problems during their visit to the health center, and 87.2% of the participants did not dare to discuss the problem with their doctor (Table 5). Of the reasons that led not to ask, 47.8% of the females feel embarrassed or ashamed, whereas 25.7% think that the condition was not serious enough to be discussed, and 16.2% lacked the knowledge about the services to treat the sexual problem. Furthermore, 50.6% of the participants wanted to be treated by a sexual specialist doctor, preferably a female doctor (92.3%) (Table 5). Finally, 91.1% of the females did not know about the sexual health clinic in NBB (Arad) Health Center.

Table 5: Questionnaire and the results on the access to professional help

Variable	Frequency (%)
Did your doctor ask you about sexual problem during your visit to the health center?	
Yes	6 (3.8)
No	150 (96.2)
Did you ask or discuss your problem with your doctor?	
Yes	20 (12.8)
No	136 (87.2)
What are the barriers preventing you to seek medical treatment?	
Feeling embarrassed/shame	70 (44.9)
Feeling not series	38 (24.4)
Lack of knowledge about services to treat the problem	24 (15.4)
Other	14 (10.0)
If you want seek treatment, who do you prefer?	
Family physician or general practitioner	31 (19.9)
Sexual specialist doctor	79 (50.6)
Gynecology and obstetrics specialist	42 (26.9)
Other	4 (2.6)
Do you prefer a female doctor?	
Yes	144 (92.3)
No	12 (7.7)
Are you aware of the sexual health clinic in NBB at Arad Health Center?	
Yes	32 (8.9)
No	328 (91.1)

Discussion

The sexual regime has been documented to play a part in FSD, especially in male-centered countries. For instance, in the present report, we have shown that in Bahrain, a male-centered regime, 43% of the females had one type of FSD, and 57% of females were satisfied with their sexual function. It has been documented that in gender-equal regimes, that is, western Europe and North America, women who have been satisfied with sexual function ranged from 64% to 91% with a median of 78%. On the other hand, women from Arab male-centered and Asian male-centered regimes valued their sexual satisfaction at 45–77% (Median of 56%) and 40–61% (Median of 46%), respectively [8], [10].

The most critical finding in the present study is the association of male polygamy with FSD (OR of 2.469 (95% CI 1.218–5.001). In Islam, males have the right to marry up to four wives. Although Islam is a religion that esteems women and places importance on the marital relationship like preparation for coitus, male genders, and the social culture usually fail to fulfill such capacity [11]. A recent study in the Arab Islamic, population reported that polygamy was not a factor in FSD [12]. The latter finding could be due to the low percentage of polygamies (4.4%) in comparison to the present study (11.4%). Furthermore, in a male-centered non-Arab country, it has been shown that a male polygamous family setting (111 out of 384) was associated with FSD [13]. Although polygamy has been linked to serious mental health issues in women such as somatization, depression, anxiety, hostility, psychoticism, as well as a reduction in marital satisfaction and low self-esteem, studies are very limited relating the impact of polygamy on women's sexual function and health [14], [15], [16]. Therefore, more social studies on polygamy and FSD should be performed.

It has been reported that older age is a risk factor in male-centered sexual regimes as well in

gender-mixed sexual regimes [10], [17]. Herein, we divided the studied population-based on reproductive ability [18]. The results showed that women younger than 45 years had significantly less chance of having FSD than 46–60 years. Although this finding is associated with the consequence of menopausal transition that enhances FSD [4], [17], the parity level or frequency of sexual intercourse at the age group of 18–29 years seemed to be another factor of FSD. Although a systematic review study did not find parity effect on FSD [10], it has been shown in identical twin study design that nulliparous women had better sexual satisfaction than parous women [19]. The long-term effects of childbirth and the physiological strains of parenting influence the psychological aspect of sexual function, mainly on sexual desire and excitement [19].

Many women, as well as their health care practitioners, are reluctant to ask about sexual activity. This issue is common in the Arab male-centered regime, as seen herein. In the present study, more than 96% of cases physicians did not ask about women's sexual activities, and more than 87% of the women in this study did not discuss their sexual problem with their physician [4], [10]. The latter are the main barriers in the Arab countries that halt the improvement of women's sexual health and consequently their quality of life and marital relationship [4], [20]. Although Bahrain health care started providing sexual health services in the primary healthcare setting, most patients are not aware of the availability of this service. Therefore, more effort is needed to announce the available services among health-care professionals across Bahrain hospitals and clinics. Furthermore, appropriate advertisements are required to alert patients of such clinics and the services provided. This emphasizes the duty of physicians in educating and encouraging patients to discuss and seek treatment.

This study has two main limitations. First, many subjects refused to participate in this survey and considered the questionnaire an invasion of their private life. This reflects to the conservative culture in Bahrain and the region and obviously could reflect the percentage of patients who reported sexual dysfunction as those who open to talk about the subject. Thus, the actual FSD prevalence, herein, may be underestimated. The second crucial limitation is that some questions in this survey depended on each woman's judgment and without clinical assessments.

Conclusion

The present study clearly showed the challenges that face women's sexual health in Arab male-centered countries. First, the prevalence of FSD is high, and second, the barriers to seeking treatment are even higher. Furthermore, more studies on male polygamy and the long-term effect of parity and FSD

in Arab male-centered countries are warranted. Besides, female sexual education and the availability of treatment and specialists would encourage them to seek treatment. Therefore, we recommend further studies to overcome concealed cases and involve clinical examination to address this complex problem.

Authors' Contributions

Conceptualization, M.A., M.A.S, and H.M., study design, M.A. and N.D., execution, M.A., MAS, and H.M., acquisition of data analysis, M.A., H.M. and M.A.S., and interpretation M.A. and E.A., drafting, M.A., revising or critically reviewing, N.D. and E.A. All authors have read and agreed to the published version of the manuscript.

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