ORIGINAL ARTICLE

The Risk Factors and Prevalence of Sexual Dissatisfaction Among Malaysian Women Attending Primary Care Clinics

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ABSTRACT

Introduction: There is limited data available that investigates the prevalence and risk factors for female sexual dissatisfaction. This research aims to determine the prevalence of female sexual dissatisfaction and risk factors among attendees in health clinics in Melaka. **Materials and methods:** This cross-sectional study recruited 362 patients using a universal sampling method. The instruments used were validated Malay versions of the Female Sexual Function Inventory (MVFSFI) for the sexual satisfaction domain to assess respondents' sexual dysfunction. A multiple logistic regression analysis was conducted to identify predictors of sexual dissatisfaction. **Results:** The prevalence of female sexual dissatisfaction was 23.5%. Multiple logistic regression showed that females aged ≥40 had lower odds of reporting sexual dissatisfaction compared to those <40 years (OR = 0.524, 95% CI: 0.300–0.918, p = 0.024). Contraceptive users also had lower odds (OR = 0.411, 95% CI: 0.219–0.774, p = 0.006). Conversely, those with sexual intercourse frequency >3 times/week in comparison with 1-2 times/week had higher odds of dissatisfaction (OR = 2.191, 95% CI: 1.123–4.725, p = 0.021). **Conclusion:** The prevalence of female sexual dissatisfaction is high and needs attention from medical practitioners and doctors. As there was a limitation of the cross-sectional design in this study, further prospective research is pivotal in understanding the causal and effect relationship between these two dyads for a more holistic patient treatment. Multiple factors that may mediate the risk factors, such as coercion, relationship stress, and sexual performance anxiety, which were not studied, may warrant future qualitative study analysis.
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INTRODUCTION

Female sexual dysfunction (FSD) is common and poses a major problem among women (1-3). FSD is characterized by disturbances in the process of the female sexual response cycle and is associated with an alarmingly higher prevalence (1-3). All domains of sexual functioning, including sexual satisfaction, are affected by FSD, besides impairment of sexual desire, subjective arousal, lubrication, and orgasm (1-3). Additionally, FSD could impact marital relationships and decrease quality of life (QoL) (4-5). Sexual dissatisfaction is associated with a decline in the frequency of sexual intercourse (SI) and QoL (6-7). These situations certainly represent a major risk factor for the development of mental health issues (6-8). Female sexual functioning is affected by numerous factors, including the female's psychological state, cultural influence, educational, and socio-economic statuses, as well as the reluctance of patients and some physicians in addressing such problems, except upon the spouse's request when facing sexual dissatisfaction (9-13).

Local studies have determined the prevalence of FSD

and its risk factors (14-15). However, data are scarce in Malaysia, a country with a diverse socio-cultural landscape. In addition, our current study on female sexual dissatisfaction may add more data and knowledge of current sexual problems in Malaysia, as to the best of the researcher's knowledge, the study of female sexual dysfunction was conducted more than 5 years ago (14-17). Hence, this study focused on the women in suburban and rural areas to maintain the heterogeneity of the sample. In this study, we aimed to determine the prevalence of female sexual dissatisfaction among women in primary healthcare clinics and its relationship with demographic data.

MATERIALS AND METHODS

Our research was a cross-sectional study. The samples were collected for two months from 1st October 2021 in three government health clinics in Melaka, a state in the southern part of peninsular Malaysia. Female respondents were selected at the outpatient clinics by convenient sampling based on inclusion criteria. An explanation participant information sheet was given. Written informed consent was obtained. A replacement was chosen if the respondent was not keen to furnish consent. Participants with a significant Malay Female Sexual Function Index (MVFSFI) score were offered a referral to the psychiatric clinic for further assessment.
All female respondents who attended Ayer Keroh, Ayer Molek, and as well as Tengkera health clinics were recruited. The inclusion criteria were females aged between 18 and 60 years who were sexually active. Sexually active was defined as women engaging in SI at least once a month. Also included were women who could read and understand the Malay language and consented to participate in the study. The exclusion criteria were those with severe illnesses such as chronic renal, cardiovascular, and cerebrovascular disease. In addition, respondents who were pregnant and in the postpartum period for 2 months were excluded.

The study sample size for prevalence was calculated using the Sample Size Calculator for estimations and was further inflated by 15% to accommodate the possible non-response bias. The final overall sample size was 368, of which 4 of the respondents wrongly filled in the questionnaire, while 2 respondents submitted the questionnaires with missing answers. Hence, the final analysed data was 362.

Instruments

The instruments used in this study were a socio-demographic form and the Malay Female Sexual Function Index (MVFSFI). The MVFSI is a self-rating instrument with a 19-item multidimensional framework developed initially by Rosen and validated for use in Malay (18). The Cronbach's alpha for sexual satisfaction, i.e., cases and non-cases, is 0.944 and 0.836, respectively. The total internal consistency is 0.901 (18). The FSFI assesses overall sexual function and the domains, including sexual satisfaction, sexual arousal, lubrication, orgasm, and sexual pain. It assessed sexual function during the last 4 weeks before the questionnaire was given. A score of ≤11 for sexual dissatisfaction was determined based on the study by Sidi et al. (18).

Statistical Analysis

The data were analyzed using the Statistical Package for Social Sciences (SPSS) Version 28.0 software. Descriptive analysis was done for each of the variables. The categorical data were presented as frequency and percentage, while the continuous variables were presented as mean and standard deviation. The normality test was done based on the graphical method of the continuous variables. The chi-square test was done for categorical variables, while the independent sample T-test was done for continuous variables in the bivariate analysis.

A multiple logistic regression analysis was conducted to determine factors associated with sexual dissatisfaction (0 = No, 1 = Yes). Variables with a p-value of less than 0.25 in the bivariate analysis were included in the model using the Enter method. The model considered factors such as age group, household financial status, age at menarche, contraceptive use, year of last childbirth, partner's age group, GAD-7 scores, and the neuroticism personality trait. The Hosmer-Lemeshow test showed that the model fit well ($\chi^2 = 6.27$, $p = 0.617$). Associations were quantified using odds ratios (OR) with a p-value of less than 0.05 and 95% confidence intervals (CI).

Ethical consideration

The research was approved by the National Medical Research and Ethics Committee (MREC) Ministry of Health Malaysia via the National Medical Research Registry (NMRR) (Registration number: NMRR-21-1397-60192 (IIR).

RESULTS

Baseline characteristic of respondents

A total of 368 respondents were recruited in this study. However, only 362 of them completed the questionnaire (98.4% response rate). The majority of the respondents were less than 40-year-old (n=265, 73.2%); of Malay ethnicity (n=333, 92.0%); Islam in religion (n=335, 92.5%); having a tertiary level of education (n=203, 56.1%); currently employed (n=261, 72.1%); and from the B40 economic status (n=207, 57.2%).

Apart from that, most of them were non-smokers (n=357, 98.6%) and did not consume alcohol (n=358, 98.9%). Regarding their gynaecological history, the majority of the respondents achieved menarche at the age of 12 years old (n=155, 42.8%). The mean and standard deviation of the age of menarche were 12.5 years and 1.2 years, respectively.

Table I. Factors associated with female sexual dissatisfaction

Variable	Sexual dissatisfaction No Freq (%)	Sexual dissatisfaction Yes Freq (%)	χ^2	p-value
Age group (years)				
≥ 40	36	20	11.216	0.001*
< 40	(40.4)53	(22.3)212		
	(65.2)	(77.7)		
Ethnicity				
Malay	79 (23.7)	254 (76.3)	2.733[a]	0.389
Chinese	5 (41.7)	7 (58.3)		
Indian	4 (30.8)	9 (69.2)		
Others	1 (24.6)	3 (75.0)		
Religion				
Islam	80 (23.9)	255 (76.1)	2.024[a]	0.580
Christian	1 (33.3)	2 (66.7)		
Buddhist	4 (36.4)	7 (63.6)		
Hindu	4 (30.8)	9 (69.2)		
Education				
No tertiary education	40 (25.2)	119 (74.8)	0.050	0.823
Tertiary education	49 (24.1)	154 (75.9)		
Employment status				
Yes	62 (23.8)	199 (76.2)	0.348	0.555
No	27 (26.7)	74 (73.3)		
Household financial status				
B40	57 (27.5)	150 (72.5)	3.997	0.140
M40	24 (18.6)	105 (81.4)		
T20	8 (30.8)	18 (69.2)		
Smoking status				
Yes	0 (0.0)	5 (100.0)	0.582	0.339
No	89 (24.9)	268 (75.1)		
Alcohol consumption	0 (0.0)	4 (100.0)	0.319	0.576
Yes	89	269 (75.1)		
No	12.76	12.43	5.462	0.020*
Age of menarche	(1.23) [b]	(1.14) [b]		
Sexual frequency (per week)				
1 – 2	76 (28.0)	195 (72.0)	6.955	0.008*
≥ 3	13 (14.3)	78 (85.7)		
Contraception				
Yes	15 (13.3)	98 (86.7)	11.336	0.001*
No	74 (29.7)	175 (70.3)		
Last childbirth				
Nil	8 (15.1)	45 (84.9)	3.744	0.154
< 2 years	26 (23.4)	85 (76.6)		
2 years >	55 (27.8)	143 (72.2)		
No. of children				
2 or less	55 (25.7)	159 (74.3)	0.310	0.578
>2	34 (23.1)	113 (76.9)		
Period of marriage (years)				
< 5 years	36 (25.2)	107 (78.8)	0.044	0.833
5 years and >	53 (24.2)	166 (75.8)		
Partner's age (years)				
<30	17 (19.8)	69 (80.2)	7.054	0.070
30 to 39	41 (26.8)	112 (73.2)		
40 to 49	18 (19.8)	73 (80.2)		
>50	13 (40.6)	19 (59.4)		
Generalized Anxiety Disorder (GAD-7)[b,c]	3.34 (3.66)	5.05 (4.72)	6.967	0.009*
Personality Traits[b,c]				
Extraversion	3.32	3.36 (0.51)	-0.697	0.486
Agreeableness	(0.54)	3.78 (0.43)	-0.218	0.827
Conscientiousness	3.77	3.57 (0.48)	-0.140	0.888
Neuroticism	(0.39)	2.62 (0.63)	1.658	0.098
Openness	3.56	3.25 (0.40)	-0.263	0.793
	(0.44)			
	2.75			
	(0.55)			
	3.23			
	(0.38)			

[a] Fisher exact test, [b]Mean (SD), [c]Independent T-test, [d]t-stats, *p<0.05

Most of the respondents were married (n=356, 98.3%) and had a frequency of intercourse once or twice a week (n=271, 74.9%). About 31.2% (n=113) were on contraception. More than half (n=198, 54.2%) of the last childbirth was more than 2 years ago, and 58.0% (n=210) gave birth normally. More than half of the respondents (n=214, 59.6%) had two children or below, while the majority were married for less than 5 years (n=143, 39.5%). The partner's age group of 30 to 39 years was the majority (n=153, 42.3%).

Based on the cut-off point < 11 on the domain of sexual satisfaction for MVFSI, the prevalence of female sexual dissatisfaction was 23.5% (85/362).

Factors associated with female sexual dissatisfaction

Table I demonstrated the factors associated with female sexual dissatisfaction using bivariate analysis. Out of 18 variables under study, only 5 factors yielded significant results, as shown in the table. Female with sexual dissatisfaction was associated with respondents who aged less than 40-year-old (77.7%, p=0.001), have sexual frequency of 3 times or more per week (85.7%, 0.008) and using contraception (86.7%, p=0.001). Apart from that, two continuous variables with significant results for sexual dissatisfaction were the age of menarche (p=0.020) and GAD-7 score (p=0.009).

Female with sexual dissatisfaction was associated with respondents aged (p=0.001), age of menarche (p=0.020) and contraception usage (p=0.001) as shown in Table I.

Predictors of Female Sexual Dissatisfaction

All independent variables with a p-value less than 0.25 from the bivariate analysis were included in the multiple logistic regression analysis. Among the nine factors considered, only three emerged as significant predictors: the respondent's age group, contraceptive use, and frequency of sexual activity. The results were shown in Table II.

The analysis revealed that women aged 40 and above had lower odds of experiencing sexual dissatisfaction compared to those under 40 (OR = 0.524, 95% CI = 0.300–0.918, p = 0.024), representing a 47.6% decrease in odds. Additionally, respondents who used contraception were less likely to report sexual dissatisfaction than those who did not (OR = 0.411, 95% CI = 0.219–0.774, p = 0.006), indicating a 59.9% reduction in odds. The study also found that women engaging in sexual intercourse more than three times a week had over twice the odds of reporting sexual dissatisfaction compared to those with a frequency of once or twice a week (OR = 2.191, 95% CI = 1.123–4.725, p = 0.021). The logistic regression model was statistically significant, χ^2 (10) = 33.08, p < 0.001, showing it effectively predicts the outcome compared to a model without predictors. The model fit was good, as evidenced by the Hosmer and Lemeshow test (p=0.617). It showed high sensitivity (98.2%), accurately identifying most respondents who experienced sexual dissatisfaction. However, the specificity was low (10.1%), indicating a limited ability to correctly identify those not experiencing sexual dissatisfaction. The Nagelkerke R^2 value was 0.130, suggesting a modest fit for the model.

Table II. Multiple logistic regression analysis for female sexual dissatisfaction

No	Variable	Crude OR[a]	B	S. E	Wald	df	P value	Adjusted OR	95 % CI
1	Age group (years old) < 40 ≥ 40	0.424	-0.645	0.286	5.107	1	0.024	0.524	0.300-0.918
2	Contraception Yes No	0.362	-0.888	0.322	7.601	1	0.006	0.411	0.219-0.774
3	Frequency of sexual activity 1 – 2 ≥ 3	2.338	0.785	0.341	5.297	1	0.021	2.191	1.123-4.725

[a]Crude Odds Ratios (OR) were obtained using Simple logistic regression. Binary Logistic (Enter method). Hosmer and Lemeshow test, p= 0.617, indicating model fitness. Nagelkerke R square = 0.130

DISCUSSION

The study was conducted despite a unique challenge in the Malaysian context due to the cultural sensitivity regarding sexuality. Many people might be unwilling to open up and be ready to divulge details of their sexuality. Moreover, in the Malay society, women were not expected to readily comment on their sexual needs, especially their dissatisfaction with sexual matters, as Islam prohibits public sexual disclosure except for treatment purposes (19). Nevertheless, our study revealed that the prevalence of female sexual dissatisfaction was 23.5%, which was comparable with the international study outcomes (16). The study found that lower sexual frequency is significantly associated with female sexual dissatisfaction with rates comparable to international findings, despite cultural sensitivities surrounding sexuality. Lower sexual frequency was significantly associated with sexual dissatisfaction, highlighting the influence of relational and psychosocial factors.

Although the regression model showed a good fit, unmeasured variables and sample limitations may have affected specificity and generalizability. There is probably a role for factors such as coercion, relationship stress, or sexual performance anxiety. In our model for regression analysis, the model fit was good and showed high sensitivity. However, the specificity was low (10.1%), and we might miss a few independent variables like relationship quality, communication, history of trauma, or satisfaction with the partner that were not measured in our study.

Sexuality, sensuality, and sexual functioning can be affected by various medical and health conditions, such as cardiovascular disorders, mental state, hormonal balance, such as menopause, neurological disorders, injury to the spinal cord, and other factors (20-22). On the other hand, poor sexual health can negatively affect health-related aspects, such as cardiovascular health (20-22). Given the evidence supportive of sexual health's benefit in overall well-being, sexual functioning and sexual satisfaction should be acknowledged as an essential health factor for a good quality of life and personal well-being (23). Future research should adopt culturally sensitive, multilingual approaches and include a broader representation of sexually active women to better inform sexual health interventions.

In terms of limitations, most respondents were Malay females; hence, it might not represent all the females with various backgrounds in the population. Most non-Malays were not fluent in Bahasa Melayu or English, hence they were reluctant to participate in the study. With these limitations, the authors recommended the use of other validated FSFI questionnaires in various languages, such as Mandarin or Tamil. Another limitation was the lack of inclusion of all sexually active females. This limitation might also contribute to the inability to grasp the real prevalence of sexual dysfunction in the population. In the past studies done in Malaysia (14,18), only married couples were included because, in Malaysia, most people are unable to accept extramarital sexual relationships. In this study, those who were not married were approached, and only 1.7% of the respondents were unmarried but sexually active.

It is recommended in future studies to encourage more unmarried females to participate in the study, so that it includes all sexually active females, but their sexual background in relation to their cultural sensitivity must be taken into consideration during any counselling. We aim to help all females have healthy and safe sexual health regardless of their marital status.

CONCLUSION

Sexual dissatisfaction is associated with many factors, and one of the major associations is a decrease in sexual frequency. Future studies focusing on cultural barriers and implications for clinical practice are worth pursuing in the future. To our understanding, a qualitative study like thematic analysis and meta-synthesis will be appropriate because it can study in-depth cultural, religious, and relationship issues among women and their partners.

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