Research Report

Prevalence of Sexual Dysfunction Based on Female Sexual Function Index and Perception of Newly Bride in Jati Village and Its Related Factors

Prevalensi Disfungsi Seksual Berdasarkan Female Sexual Function Index dan Persepsi Perempuan Pengantin Baru di Kelurahan Jati dan Faktor-Faktor yang Berhubungan

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Abstract

Objective: To found prevalence of female sexual dysfunction based on FSFI and perception of newly bride in Jati Village and its related factors.

Method: A cross-sectional study was conducted in 33 newly-brides in Jati Village, East Jakarta, who got married for the first time within less than 6 months and did not have severe disease. We translated and validated the Female Sexual Function Index (FSFI) and added items on sexual dysfunction perception. The questionnaires were self-administered by the respondents.

Results: Almost half (42.4%) of the participants were 26 - 30 years old. The most frequent sexual dysfunction domains were sexual arousal disorder and sexual pain. Frequency of sexual intercourse was significantly associated with sexual dysfunction based on FSFI. Marital age and frequency of sexual intercourse were significantly associated with sexual dysfunction based on participants' perception. Agreement between FSFI score and sexual dysfunction perception was substantial (Kappa = 0.615, p < 0.001).

Conclusion: The sexual dysfunction prevalence based on FSFI was 15.2% and based on perception was 12.1%. Participants age and frequency of sexual intercourse had a significant relationship with sexual dysfunction. Most of participants who felt that they had sexual dysfunction did not seek for medical services.

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Keywords: FSFI, newly bride, prevalence, sexual dysfunction

Abstrak

***Tujuan**: Untuk mengetahui prevalensi disfungsi seksual berdasarkan FSFI dan persepsi perempuan pengantin baru di Kelurahan Jati dan faktor-faktor yang berhubungan.*

***Metode**: Penelitian dilakukan dengan desain potong lintang pada 33 perempuan pengantin baru di Kelurahan Jati yang baru pertama kali menikah dengan usia pernikahan kurang dari 6 bulan dan tidak dalam keadaan sakit berat. Pengumpulan data dilakukan dengan mengisi kuesioner yang diterjemahkan dari Female Sexual Function Index (FSFI) yang divalidasi, ditambah pertanyaan mengenai persepsi dan sikap terhadap disfungsi seksual. Kuesioner diisi dengan cara self-administered.*

***Hasil**: Didapatkan bahwa hampir separuh (42,4%) responden berusia 26 - 30 tahun. Domain disfungsi seksual yang terbanyak adalah gangguan dorongan dan nyeri seksual. Terdapat hubungan yang bermakna antara frekuensi hubungan seksual dengan disfungsi seksual menurut total FSFI. Selain itu terdapat hubungan yang bermakna antara usia pernikahan dan frekuensi hubungan seksual dengan persepsi disfungsi seksual. Kesesuaian antara skor FSFI dan persepsi disfungsi seksual baik (Kappa = 0,615 p < 0,001).*

***Kesimpulan**: Prevalensi disfungsi seksual menurut FSFI sebesar 15,2% dan persepsi responden sebesar 12,1%. Terdapat hubungan bermakna antara usia pernikahan dan frekuensi hubungan seksual dengan disfungsi seksual. Mayoritas responden yang mempersepsikan dirinya memiliki disfungsi seksual menganggap hal tersebut sebagai suatu masalah, tetapi tidak menjalani terapi.*

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***Kata kunci**: disfungsi seksual, FSFI, perempuan pengantin baru, persepsi*

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INTRODUCTION

Female sexual dysfunction is a common problem in women. One study in the United States found the prevalence of sexual dysfuntion was higher in woman (43%) than man (31%).[1] The prevalence of female sexual dysfunction is 41% in United Kingdom and 49% in Brazil.[2] Higher prevalence was found in Malaysia (51.9%).[3] Those studies show that two to three of five women had sexual dysfunction. Female sexual dysfunction could be classified into four types, i.e. sexual desire disorder, sexual arousal disorder, orgasmic disorder, and pain disorder. The study in the United States found that 64% have sexual desire disorder, 33% have orgasmic disorder, 31% have sexual arousal disorder, and 26% have pain disorder.[1]

Although the prevalence of female sexual dysfunction is high, government and people attention is still low. Arcos[4] found that female sexual dysfunction has a lower priority but could had a big effect on quality of live. In marriage, sexuality is an important problem because it would affect procreation, recreation, relation, and institution dimension.[5] Recreation dimension means to find enjoyment, where sex will affect sexual satisfaction. So that, awareness to female sexual dysfunction in newly bride would increase quality

of marriage. Comprehensive reproductive health care in Indonesia only provides mother and infant health care, family planning, sexual transmitted disease, and reproductive health for elderly. There is no health care program for female sexual dysfunction yet. There is also no published data about female sexual dysfunction prevalence in Indonesia. Therefore, the objective of our study was to evaluate the female sexual dysfunction prevalence and its related factors. We also evaluated what Indonesian women's perception on and attitude towards sexual dysfunction.

METHOD

A cross-sectional study with a total sampling method was conducted from May to June, 2009, in Jati Village, East Jakarta. Study population was newly bride in Jati Village. Newly bride (first marriage) with less than six months of marital age, who were literate and willing to participate were included in this study. Brides who had severe disease, or could not give information during data collection, or did not live with her husband for more than one month were excluded. We used the translated Female Sexual Function Index (FSFI) questionnaires. We added a few questions about their perception and attitude towards female sexual dysfunction and validated the questionnaires. The questionnaires were self-administered. All analysis was performed using SPSS for Windows version 17.0.

RESULT

There were 302 newly bride (less than six months of marital age) registered at the Jati Village office. Most of them (80%) had moved to other area. One bride was excluded because she did not live with her husband, 2 brides refused to participate, 2 brides did not get their husbands' permission to participate, and 25 brides could not be found. A total count of 33 brides participated in this study (participation rate 54.1%).

Five participants (15.2%) had sexual dysfunction based on FSFI scores: 1 participant had two disorders, 2 had three disorders, 1 had four disorders, and 1 had five disorders. Based on dysfunction domain (Table 2), 54.5% of the participants had pain disorder, and 45.4% had sexual desire disorder. In total, there were 25 participants (75.8%) with at least one disorder.

Table 2. Distribution data based on sexual dysfunction domain from FSFI (n = 33).

Sexual dysfunction domain	n	%
Sexual desire disorder	15	45.4
Sexual arousal disorder	3	9.1
Lubrication disorder	6	18.2
Orgasmic disorder	4	12.1
Sexual satisfaction disorder	3	9.1
Sexual pain disorder	18	54.5

*cut off point for each domain was adapted from mean or median per domain in group that had sexual dysfunction based on FSFI total score.

Table 1. Distribution data based on age, nutritional, educatio-nal, occupational status, history of hypertension, diabetes mellitus, hormonal contraception, marital age, frequency of sexual intercourse, and husband age (n = 33).

Variables	Category	n	%
Age	< 20 years old	2	6.1
	20 - 25 years old	12	36.4
	26 - 30 years old	14	42.4
	30 - 35 years old	4	12.1
	> 35 years old	1	3.0
Nutritional status	Underweight	4	12.0
	Normal	15	45.5
	Pre Obese	9	27.3
	Obese	5	15.2
Educational status	Low	0	0
	Moderate	18	54.5
	High	15	45.5
Occupational status	Not working	15	45.5
	Working	18	54.5
History of hypertension	Yes	0	0
	No	33	100
History of diabetes mellitus	Yes	0	0
	No	33	100
Use of hormonal contraception	Yes	0	0
	No	33	100
Marital age	0 - 3 months	23	69.7
	4 - 6 months	10	30.3
Frequency of sexual intercourse	< 1 time per month	1	3.0
	1 - 2 times per month	2	6.1
	1 - 2 times per week	9	27.3
	3 - 4 times per week	18	54.5
	> 4 times per week	3	9.1
Husband age	< 20 years old	2	
	20 - 25 years old	12	
	26 - 30 years old	14	
	30 - 35 years old	4	
	> 35 years old	1	

Four (12.1%) participants perceived themselves as having sexual dysfunction. Three of them (75%) thought that sexual dysfuntion was a problem. However, two of them would not seek for medical care, and one would go to a doctor. Their reasons for not seeking medical care were because they felt embraced and did not know where to obtain medical care for this problem.

The agreement between FSFI and participants' perception about sexual dysfunction was good (Kappa score = 0.615; p < 0.001). Three of four participants who had sexual dysfunction based on FSFI scores, perceived themselves as having sexual dysfunction. (Table 3)

Table 3. Agreement between FSFI score and participants' perception about sexual dysfunction.

Perception	FSFI total score		Total
	Dysfunction	No dysfunction	
Dysfunction	3	1	4
No dysfunction	2	27	29
Total	5	28	33

Kappa score = 0.615; p < 0.001

As shown in Table 4, the frequency of sexual intercourse was significantly associated with sexual dysfunction based on FSFI score. Two of three participants who seldom had sexual intercourse had sexual dysfunction. Four of 14 participants in the pre-obese and obese groups had sexual dysfunction. Four of 10 participants with marital age between 4 - 6 months had sexual dysfunction.

We found significant associations between marital age and frequency of sexual intercourse with sexual dysfucntion based on participants' perception (Table 5). A quarter of participants with marital age between 4 - 6 months had sexual dysfunction. Two of three participants who seldom had sexual intercourse had sexual dysfunction.

Half of participants in the pre-obese and obese groups had sexual desire disorder. All participants who seldom had sexual intercourse had sexual desire disorder. Sixty-percent participants in the pre-obese and obese groups had sexual pain disorder. Two of three participants who seldom had sexual intercourse had sexual pain disorder.

Tabel 4. Associations between sexual dysfunction based on FSFI score and age, nutritional, educational, occupational status, marital age, frequency of sexual intercourse, and husband age (n = 33).

Variables	Category	Sexual dysfunction		Test	p	Notes
		Yes	No			
Age	> 35 years old°	0	1	Fisher	1.00	NS
	30 - 35 years old°	1	3			
	26 - 30 years old°	2	12			
	20 - 25 years old*	1	11			
	< 20 years old*	1	1			
Nutritional status	Obesity°	0	5	Fisher	0.14	NS
	Pre Obesity°	4	5			
	Normal*	1	14			
	Poor*	0	4			
Educational status	High	3	12	Fisher	0.64	NS
	Moderate*	2	16			
Occupational status	Working	3	15	Fisher	1.00	NS
	Not working	2	13			
Marital age	0 - 3 months	1	22	Fisher	0.18	NS
	4 - 6 months	4	6			
Frequency of sexual intercourse	< 1 time per month*	0	1	Fisher	0.05	Significant
	1 - 2 times per month*	2	0			
	1 - 2 times per week°	1	8			
	3 - 4 times per week°	2	16			
	> 4 times per week°	0	3			
Husband age	> 35 years old°	0	1	Fisher	1.00	NS
	30 - 35 years old°	1	3			
	26 - 30 years old°	2	12			
	20 - 25 years old*	1	11			
	< 20 years old*	1	1			

**combined in statistical test*
°combined in statistical test

Tabel 5. Associations between sexual dysfunction based on participants' perception and age, nutritional, educational, occupational status, marital age, frequency of sexual intercourse, and husband age (n = 33).

Variables	Category	Sexual dysfunction		Test	p	Notes
		Yes	No			
Age	> 35 years old°	0	1	Fisher	1.00	NS
	30 - 35 years old°	1	3			
	26 - 30 years old°	1	13			
	20 - 25 years old*	1	11			
	< 20 years old*	1	1			
Nutritional status	Obesity°	0	5	Fisher	0.29	NS
	Pre Obesity°	1	8			
	Normal*	2	13			
	Poor*	1	3			
Educational status	High	2	13	Fisher	1.00	NS
	Moderate*	2	16			
	Low*	0	0			
Occupational status	Working	2	13	Fisher	1.00	NS
	Not working	2	16			
Marital age	0 - 3 months	1	22	Fisher	0.04	Significant
	4 - 6 months	3	7			
Frequency of sexual intercourse	< 1 time per month*	0	1	Fisher	0.03	Significant
	1 - 2 times per month*	2	0			
	1 - 2 times per week°	1	8			
	3 - 4 times per week°	1	17			
	> 4 times per week°	0	3			
Husband age	> 35 years old°	1	0	Fisher	1.00	NS
	30 - 35 years old°	1	3			
	26 - 30 years old°	1	13			
	20 - 25 years old*	1	11			
	< 20 years old*	0	2			

**combined in statistical test*
°combined in statistical test

DISCUSSION

The prevalence of female sexual dysfunction based on FSFI total score was 15.2%, which was much lower than other countries.[3,6-9] This difference could be caused by different participants study population, instrument type, sexual dysfunction classification method, and sampling methods.

Our study participants were newly brides. Most of them aged 30 years old or younger. The youngest participant was 20 years old and the oldest was 37 years old. Participants in other studies were older (up to 60 years old).[3,6-9] Sidi et al[3] and Abdo et al[7] explained that sexual dysfunction would increase in older participants. Estrogen level, which will decrease in older women, played a significant role for sexual function in women.[10,11]

The most sexual dysfunction type found in this study was sexual pain disorder (54.5%) followed by sexual desire disorder (45.4%), lubrication disorder (18.2%), and orgasmic disorder (12.1%). The most sexual dysfunction type found in other countries was sexual desire. This difference might be due to younger participants distribution.[6,7]

Other differences were race and culture. One study found that brown skin women had lower prevalence in sexual dysfunction compared with black or white skin.[7] In Indonesian culture, sexual problem conversation is still taboo and this could underestimate the prevalence. Malaysia shares similar race and culture with Indonesia, and their researchers found that women with sexual dysfunction, especially orgasmic disorder, were non-Malaysian.[3] Moreover, in our study the questionnaires were self administered in participants' house. The presence of their family might have affected the participants' answer.

Different instrument and classification could also affect the prevalence. We used FSFI as our instrument and DSM-IV (desire, arousal, orgasmic, pain) for classification. We also added lubrication and sexual satisfaction category and thus, we used 6 categories for sexual dysfunction. The biggest study in the United States and England with a high prevalence of female sexual dysfunction, used 7 categories.[6,8]

Participants who had sexual dysfunction based on FSFI scores must at least had two disorders. Thus, participants who did not have sexual dysfunction based on FSFI scores could have at least one disorder. If we count women with at least one disorder, as done in other studies,[12,13] the prevalence of sexual dysfunction was 75.8%. Therefore, we have to be cautious in using FSFI score method; not to under or overestimate the prevalence.

Prevalence of female sexual dysfunction based on participants' perception was slightly lower than the FSFI score. The agreement between the two methods was good. This study found most participants, who perceived themselves as having sexual dysfunction, thought that it was a problem for them. This finding is consistent with other studies that found women who had sexual dysfunction, had a lower quality of live.[6] Two of three participants with sexual dysfunction said that they would did nothing because they felt embraced and did not kwow where to seek medical services. It shows that willingness to seek medical services and information about sexual dysfunction and its treatment is still low.

This study showed significant associations between marital age and sexual dysfunction. Similar to study by Stulhoffer A et al,[9] sexual dysfunction increased in older marital age. We also found women who seldom had sexual intercourse had more sexual dysfunction. Women with low sexual activity had a higher chance to have a decrease in sexual desire and arousal.[6] Otherwise, woman with sexual dysfunction would decrease her frequency of sexual intercourse.[14]

In contrast to other studies, we found no significant association between age, educational, occupational, and nutritional status with sexual dysfunction or sexual disorder.[3,6,7,9] This might be due to lower prevalance, different range of age, and different study population.

Although we did not find statistically significant association between educational and nutritional status, we found more sexual dysfuntion in participants with higher educational status. This might be explained by difference in priority and expectancy of a sexual relationship in different educational status.[15] Low level of knowledge about sex in Indonesian people, especially in low educational status group, could be another reason.

We also found that pre-obsese and obese women had more sexual dysfunction; which is consistent with other studies.[16,17] Lifestyle modification (regular physical activities, healthy diet, etc.) could prevent and treat sexual dysfunction.[18] Other study found that sexual desire, lubrication, orgasmic, and sexual satisfaction disorder were associated with Body Mass Index (BMI). But, sexual desire and arousal disorder were not.[19]

CONCLUSION

Prevalence of female sexual dysfunction in newly brides was 15.2% based on FSFI total score and 12.1% based on participants' perception. Marital age and frequency of sexual intercourse had significant associations with sexual dysfunction. Most of participants who perceived themselves as having sexual dysfunction did not seek for medical services.

REFERENCES

1. Ganz PA, Greendale GA. Female sexual desire-beyond testosteron. JNCI 2007; 99(9): 659-61
2. Wylie K. Assesment and management of sexual problems in women. J R Soc Med 2007; 100: 547-50
3. Sidi H. Orgasmic dysfunction among women at a primary care setting in Malaysia. Asia Pac J Public Health. 2008; 2(4): 298-306
4. Arcos B. Female sexual function and response. JAOA 2004; 104(1): 516-20
5. Harmatz MG, Noxak MA. Marital status and sexual behaviour in: Human sexuality. Harper and Row 1983: 308-37
6. Laumann EO, Paik A, Rosen RC. Sexual dysfunction in the United States. JAMA. 1999; 281(6): 537-44
7. Abdo CHN, Oliveira WM, Moreira ED, Fittipaldi JAS. Prevalence of sexual dysfunctions and correlated conditions in a sample of Brazilian women-results of the Brazilian study on sexual behavior (BSSB). Int J Impot Res 2004; 16(2): 160-6
8. Mercer CH, Fenton KA, Johnson AM, Wellings K, Macdowall W, McManus S. Sexual function problems and help seeking behavior in Britain: national probability sample survey. BMJ 2003; 327: 426-7
9. Stulhofer A, Gregurovic M, Pikic A, Galic I. Sexual problems of urban women in Croatia: prevalence and correlates in a community sample. Croat Med J 2005; 46(1): 45-51.
10. Frank Jennifer E, Mistretta Patricia, Will Joshua. Diagnosis and treatment of female sexual dysfunction. American Academy of Family Physician. 2008 [cited 2009 Mei 13]. Available from: http://www.aafp.org/afp/20080301/635.html
11. Salonia A. Women's sexual dysfunction: a pathophysiological review. BJU Int 2004; 93: 1156-64
12. Basson R, Berman JR, Burnett AL, Derogatis L, Ferguson D, Fourcroy J. Report of the international consensus development conference on female sexual difficulty and dysfunction. J Sex Med 2006; 3(4): 589-95
13. IsHak WW, Mikhail A, Amiri SR, Berman LAC, Vasa M. Sexual dysfunction. Focus 2005; 3: 520-5
14. Hisasue S, Kumamoto Y, Sato Y, Masumori N, Horita H, Kato R. Prevalence of female sexual dysfunction symptoms and its relationship to quality on life: a Japanese female cohort study. J Urology 2005; 65(1): 143-8
15. Addis IB, Van den Eeden SK, Wassel-Fyr CL, Vittinghoff E, Brown JS, Thom DH. Sexual activity and function in middle-aged and older women. Obstet Gynecol 2006; 107 (4): 755-64
16. Nicolosi A, Laumann EO, Glasser DB, Moreira ED, Paik A, Gingell C. Sexual behavior and sexual dysfunctions after age 40: the global study of sexual attitudes and behaviors. Urology. 2004; 64(5): 991-7
17. Phillips Nancy A. Female sexual dysfunction: evaluation and treatment American Academy of Family Physician. 2001 [cited 2009 Mei 13]; Available from: http://www.aafp.org/afp/20000701/127.html
18. Esposito K, Giugliano F, Citola M, De Sio M, D'Armiento M, Giugliano D. Obesity and sexual dysfunction, male and female. Int J Impot Res. 2008 [cited 2009 Mei 15]; 20: 358-65
19. Esposito K, Giugliano F, Bisogni C, Schisano B, Autorino R, Cobellis L. Association of body weight with sexual function in women. Int J Impot Res. 2007 [cited 2009 Mei 15]; 19: 353-7