PREVALENCE OF SEXUAL DYSFUNCTION IN MEDICAL AND NON-MEDICAL PROFESSION WOMEN

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ABSTRACT

Objective: *The study was conducted to determine the prevalence of sexual dysfunction and the factors affecting the medical and non-medical profession women using of Female Sexual Function Index (FSFI) as an assessment instrument.* ***Material & Method:*** *Respondents were women aged ≥ 18 years that consist of medical groups, working in the field of health care (doctors, nurses, pharmacists, hospital staff), and non-medical groups that have regular sexual partner and sexually active for 3 months. Data was taken with the Female Sexual Function Index (FSFI), translated into Indonesian.* ***Results:*** *There are 206 respondents consisting of 103 people medical and 103 people non-medical group. Mean age was 32.92 ± 7.23 respondents in the youngest age of 21 years and the oldest 53 years. Most respondents (75.2%) were well educated (graduate diploma) with a long marriage has a range of 6-372 months. The majority of respondents (94.2%) married one time. The overall prevalence of sexual dysfunction (FSFI total score < 55) in the study was 9.2%. Statistically, there was no significant difference in the prevalence of sexual dysfunction (p > 0.05) between the medical groups 12,6% when compared to non-medical group (5.8%). Most interference was in the domain of satisfaction (34.0%) in the medical group and 27.2% in non-medical.* ***Conclusion:*** *The medical profession has high potential to experience sexual dysfunction. Night shifts were associated with the prevalence of sexual dysfunction in healthcare workers. Other factors were not found to be related to sexual dysfunction.*

Keywords: *Sexual dysfunction, factors that affect sexual function.*

ABSTRAK

Tujuan: *Penelitian ini dilakukan untuk mengetahui prevalensi disfungsi seksual dan faktor yang mempengaruhi pada wanita dengan profesi medis dan non-medis dengan menggunakan Female Sexual Function Index (FSFI) sebagai instrumen penilaian.* ***Bahan & Cara:*** *Responden adalah wanita berusia ≥ 18 tahun yang terdiri dari kelompok medis, yaitu mereka yang bekerja di bidang kesehatan (dokter, perawat, apoteker, pegawai rumah sakit), dan dari kelompok non-medis/awam yang mempunyai pasangan seksual tetap dan melakukan hubungan seksual aktif selama 3 bulan terakhir. Data diambil dengan Female Sexual Function Index (FSFI) yang sudah diterjemahkan ke dalam bahasa Indonesia.* ***Hasil:*** *Terdapat 206 responden yang terdiri dari 103 orang kelompok medis dan 103 orang kelompok non-medis. Rerata usia responden 32.92 ± 7.23 tahun dengan usia termuda 21 tahun dan tertua 53 tahun. Sebagian besar responden (75.2%) berpendidikan tinggi (tamat diploma - tamat pascasarjana) dengan lama pernikahan memiliki rentang 6 – 372 bulan. Mayoritas responden (94.2%) menikah 1 kali. Keseluruhan prevalensi disfungsi seksual (skor total FSFI < 55) pada responden sebesar 9.2%. Tidak terdapat perbedaan yang bermakna prevalensi disfungsi seksual secara statistik (p > 0.05) antara kelompok medis 12.6% bila dibandingkan kelompok non-medis (5.8%). Gangguan terbanyak berada pada domain kepuasan (34.0%) pada kelompok medis dan 27.2% pada non medis.* ***Simpulan:*** *Profesi medis berpotensi mengalami disfungsi seksual yang lebih tinggi. Tugas malam hari berhubungan dengan prevalensi disfungsi seksual pada wanita profesi medis. Tidak ditemukan hubungan dengan faktor lain.*

Kata kunci: *Disfungsi seksual, faktor yang mempengaruhi fungsi seksual.*

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INTRODUCTION

In recent decades, sexual health is an important component of quality of life, not least in women. According to World Health Organization (WHO), sexual dysfunction in women is defined as a state of the inability of a woman to participate in sexual relationships as expected.[1] An international consensus classified female sexual dysfunction into four major groups, namely sexual desire disorders (hypoactive sexual desire disorder and sexual aversion disorder), sexual arousal disorder, orgasm disorders, and disorders of pain during intercourse (dyspareunia, vaginismus, non-coital pain). The causes can be varied: organic abnormalities, psychogenic abnormalities, mixed, or idiopathic abnormalities of.[2,3] If not treated adequately, sexual dysfunction can affect interpersonal relationships with partner, loss of confidence, and cause emotional disorders.

In 2000 the International Consensus Development Conference on Female Sexual Dysfunction proposed changes in the definition of sexual dysfunction, with the inclusion of personal distress to be one of the diagnostic criteria requirements. Psychological and physiological symptoms of sexual dysfunction should be accompanied by the requirement that the condition is a source of distress for women.[4]

The prevalence of sexual dysfunction in women is quite high, varying from 43% to 88% in the United States,[5] and up to 22% in Europe.[6,7] Medical professionals with high load and work stressor have high potential problems that triggered by depression and anxiety.[8] Psychosocial aspects are known factors for sexual dysfunction in women.[9,10] There has been no study comparing female sexual dysfunction between the medical and non-medical professions, and analyzing related factors.

OBJECTIVE

The study was conducted to determine the prevalence of sexual dysfunction and factors affecting women with medical and non-medical profession by using Female Sexual Function Index (FSFI) as an assessment instrument.

MATERIAL & METHOD

Target population in this study were sexually active women aged ≥ 18 years. Respondents were enrolled from medical groups, namely those working in the medical/health fields (doctors, nurses, pharmacists, hospital staff), and from the lay population. Inclusion criteria were women aged ≥ 18 years who have a regular sexual partner and actively engaged in sexual intercourse during the last 3 months. Subjects who have trouble filling in the questionnaire, did not have sex in the last three months, or not willing to follow the study were excluded. Before enrollment, all respondents provided written consent. Respondents who agreed to participate in the study were asked to complete identity and the questionnaire the Female Sexual Function Index (FSFI), which has been translated into Indonesian. The minimum sample size required based on the results of the calculations was 100 respondents for each group.

FSFI questionnaires is a validated self-report questionnaire developed by Rosen R (2000) as a screening instrument for assessing sexual dysfunction in women.[1] FSFI contains 19 questions and covered six domains: desire, arousal, lubrication, orgasm, satisfaction, and pain. The score of each question has a range of 0-5. Maximum score from FSFI questionnaires is 95. Total score of less than 55 indicated sexual dysfunction.[11] Cut-off points for each domain were: arousal disorder when the score of questions 1 and 2 ≤ 5, arousal feeling disorder when the score of questions 3-6 ≤ 9, impaired lubrication when the scores of questions 7-10 ≤ 10, orgasm disorder when the score of questions 11-13 ≤ 4, disruption of satisfaction when the score of questions 14-16 ≤ 11, pain disorder when the score of questions 17-19 ≤ 7. In this study, according to the latest definition of female sexual dysfunction, true female sexual dysfunction (FSD) is established if the respondent had sexual dysfunction from FSFI scores and accompanied by personal distress in impact questions.[11] Impact questions are assessed with a single question about the patient's insight on the quality of her sexual life. Respondents were assessed as having disorder/personal distress when answering a question with one of "generally dissatisfied", "unhappy" and "terrible".

RESULTS

We obtained a total of 206 respondents who met the inclusion criteria of the study, consisting of 103 people medical groups, and 103 non-medical group. The mean age of the respondents was 32.92 ± 7.23 with the youngest age 21 years and the oldest

53 years. From Table 1, the majority of the respondents (75.2%) had higher education (diploma or postgraduate degree). The respondents had a range of 6-372 months of marriage, and most of them (94.2%) married 1 time.

There were no significant differences ($p > 0.05$) in the frequency of sexual intercourse between medical and non-medical groups as seen in Table 2. Most respondents had sexual intercourse 3-4 times in the last 4 weeks.

Table 3 shows overall prevalence of sexual dysfunction (FSFI total score < 55) in the respondents was 9.2%. Medical groups have higher prevalence of sexual dysfunction (12.6%) than the non-medical group (5.8%). However, this result was not statistically significant ($p > 0.05$).

Table 1. Respondents' characteristics (n = 206).

Variables		Description
Age*		32.92 ± 7.23 years 31 (21-53) years
Education	No formal education Elementary School Junior High School Senior High School Diploma Degree Undergraduate Degree Post-graduate Degree	2 (1.0%) respondents 2 (1.0%) respondents 5 (2.4%) respondents 42 (20.4%) respondents 71 (34.4%) respondents 82 (39.8%) respondents 2 (1.0%) respondents
Length of marriage*		108.05 ± 102.61 months 60 (6 – 372) months
Number of marriages	More than 1 time 1 time	12 (5.8%) respondents 194 (94.2%) respondents
Categories	Medical Non-Medical	103 (50.0%) respondents 103 (50.0%) respondents

*Data distribution abnormal

Table 2. Frequency of sexual intercourse (n = 206).

Frequency	Medical	Non-Medical	Statistical Test	p
No sexual activity	2 (1.9%)	3 (2.9%)	Kolmogorov-Smirnov	0.827
1-2 times	18 (17.5%)	25 (24.3%)		
3-4 times	37 (35.9%)	38 (36.9%)		
5-6 times	34 (33.0%)	24 (23.3%)		
7-10 times	8 (7.8%)	7 (6.8%)		
≥ 11 times	4 (3.9%)	6 (5.8%)		

Table 3.Sexual dysfunction prevalence.

Variables	Sexual Dysfunction (FSFI total score < 55)	Normal (FSFI total score ≥55)	Statistical test	p	RR (95% IK)
Medical (n = 103)	13 (126%)	90 (87.4%)	Chi-Square	0.092	2.167 (0.857-5.480)
Non-Medical (n = 103)	6 (5.8%)	97 (94.2%)			

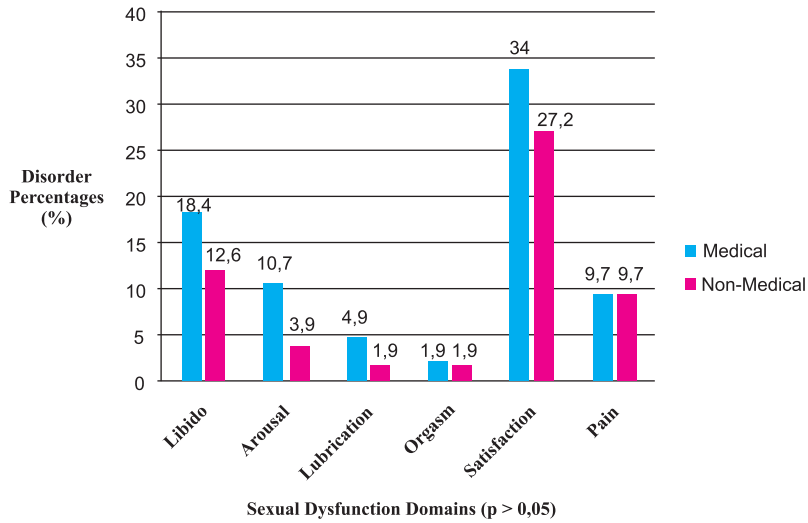

Figure 1. Distribution of sexual dysfunction by domain and profession.

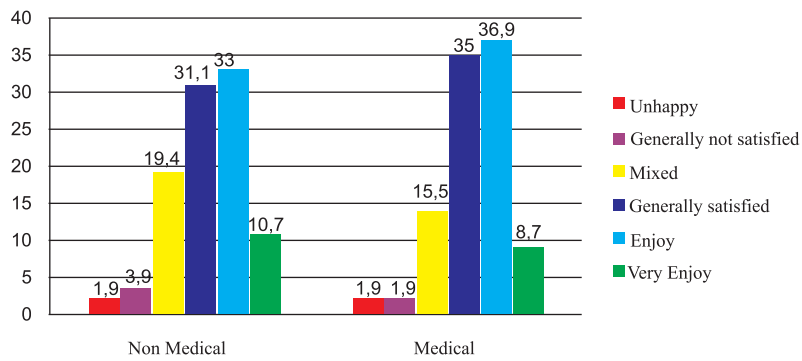

Figure 2. Quality of life with current sexual function.

Table 4.Distribution of women with sexual dysfunction and their quality of life.

Women with sexual dysfunction	True FSD (Skor FSFI < 55 + personal distress)	FSFI scores < 55 without personal distress
Medical (n = 13)	2 (15.4%)	11 (84.6%)
Non-Medical (n = 6)	1 (16.7%)	5 (83.3%)
Total (n = 19)	3 (15.8%)	16 (84.2%)

In medical groups most disorders are on the domain of satisfaction (34.0%), followed by the domain libido (18.4%), arousal (10.7%), pain (9.7%), lubrication (4.9%), and orgasm (1.9%). Similar results ($p > 0.05$) were obtained in the non-medical subjects, where the most disorders are the domains of satisfaction (27.2%), followed by libido (12.6%), pain (9.7%), arousal (3.9%), lubrication (1.9%), and orgasm (1.9%) as shown in Figure 1.

In Figure 2, there were no significant differences ($p > 0.05$) in the quality of life of the respondents between medical and non-medical group. The majority of respondents in both groups are satisfied with their sex lives today.

Taking into account the personal distress scores derived from the quality of life, overall true prevalence of FSD in this study was 1.4% of the entire sample or 15.8% of the population who experience sexual dysfunction (Table 4).

Table 5. Factors related with the whole sexual dysfunction (regardless of domain).

Variables	Categories	Sexual Dysfunction (FSFI total score < 55)	Normal (FSFI total score ≥ 55)	Statistical test	p value	RR (95% IK)
Age	21-30[a]	9 (9.0%)	91 (91.0%)			
	31-40 [a]	5 (7.4%)	63 (92.6%)	Fisher	0.356	0.633 (0.243-1.652)
	41-50 [b]	5 (14.7%)	29 (85.3%)			
	51-60 [b]	0 (0.0%)	4 (100.0%)			
Education	Low[c]	0 (0.0%)	9 (100.0%)			
	Intermediary[c]	5 (11.9%)	37 (88.1%)	Fisher	1.000	1.085 (0.411-2.866)
	High	14 (9.0%)	141 (91.0%)			
Labor history	Yes	13 (9.4%)	125 (90.6%)	Chi-Square	0.889	1.068 (0.424-2.686)
	No	6 (8.8%)	62 (91.2%)			
Family planning history	Yes	6 (7.1%)	78 (92.9%)	Chi-Square	0.392	0.670 (0.265-1.693)
	No	13 (10.7%)	109 (89.3%)			
Leucorrhoea history	Yes	1 (4.0%)	24 (96.0%)	Fisher	0.480	0.402 (0.056-2.884)
	No	18 (9.9%)	163 (90.1%)			

a,b,c combined during analysis

Table 6. Correlation between age and sexual dysfunction domains.

Variables	Categories	Libido Dysfunction	Arousal Dysfunction	Lubrication Dysfunction	Orgasm Dysfunction	Satisfaction Dysfunction	Pain Dysfunction
Age	21-30[a]	14.0%	0%	5.0%	3.0%	30.0%	11.0%
	31-40 [a]	14.7%	10.0%	0%	0%	22.1%	7.4%
	41-50 [b]	23.5%	4.4%	5.9%	2.9%	52.9%	11.8%
	51-60 [b]	0%	5.9%	0%	0%	0%	0%
p value		0.298	1.000	0.615	0.561	0.013	0.769

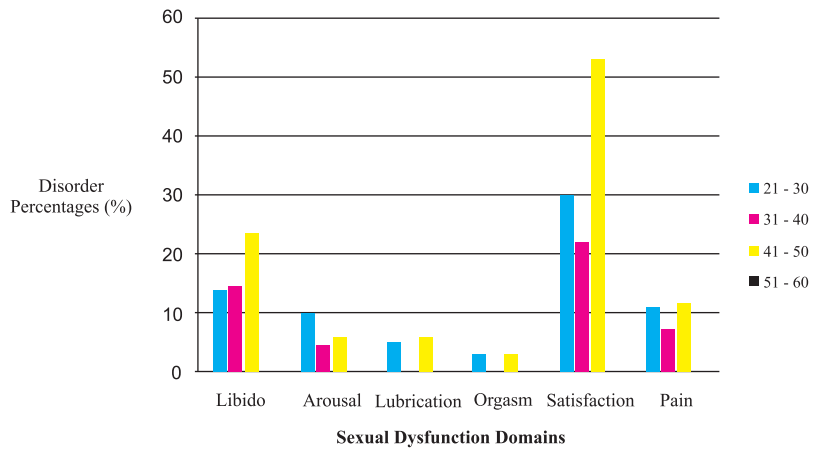

Figure 3. Prevalence based on domain and age.

Age, education, labor history, history of family planning, and the history of leucorrhoea was not significantly associated ($p > 0.05$) with the incidence of sexual dysfunction (Table 5).

In Table 6, age is significantly associated ($p < 0.05$) with dysfunction in the domain of satisfaction. The prevalence of satisfaction disorder at age 21-30 years was 30.0%, decreased to 22.1% at age 31-40 years, then increased significantly to 52.9% in the age group 41-50 years.

In general, older subjects had more satisfaction disorders. There were no significant correlation ($p > 0.05$) between the age with disorders of other domains (Fig. 3).

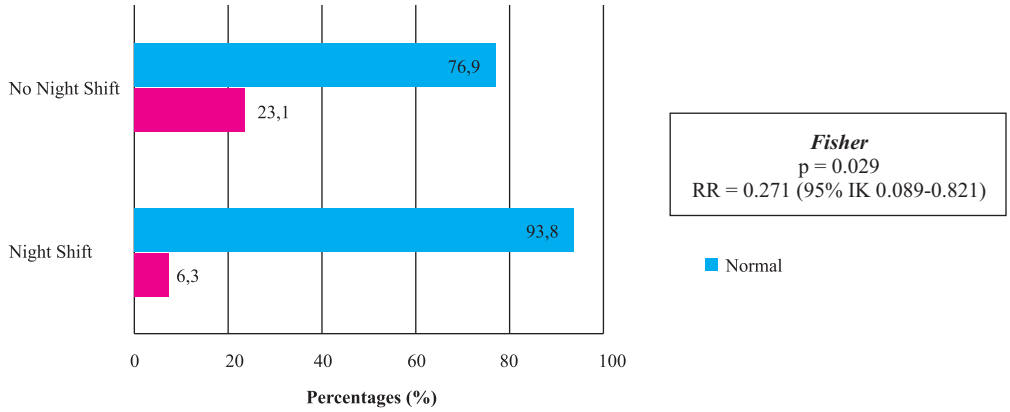

Figure 4. Effect of night shift on sexual dysfunction in medical group.

In the medical group, the night shift becomes a protective factor against sexual dysfunction with a value of RR 0.271. Respondents who worked in medical field and had night shifts has 0.271 times lower risk of sexual dysfunction than those who work without the night shift (Fig. 4).

DISCUSSION

The prevalence of female sexual dysfunction in this study, amounting to 9.2%, was not much different from the research by Taher A (2001), which was 15.2% in female population in Jakarta, but much lower than the results obtained Elsamra S (2010), who reported 63.0%.[11,12] Taher A (2001) and Elsamra S (2010) used the same instrument, the FSFI containing 19 questions. The difference may be influenced by respondent characteristics. Elsamra S took the samples from the population of metropolitan cities in the United States, where there was openness to convey everything, with socio-economic and educational levels higher than the Indonesian population.[11,12] Talk about sex in Indonesian society is still considered taboo, often people do not care or avoid the subject, and possible lack of knowledge to identify sexual problems. Taher A (2001) found 84.8% of women who experience sexual dysfunction can accept the situation without causing stress.[12] Similar results were obtained by Bachsinar B (2003), 83.95% of women in the Bandung population with sexual dysfunction can accept the situation.[13] In this study, 84.2% of women who suffer from sexual dysfunction (FSFI < 55) can accept the situation, not much different with that from the research Taher A (2001) and Bachsinar B (2003).

Disorders experienced by most respondents were in the domain of satisfaction, followed by libido. Kamil ST (2006) found that sexual satisfaction was also the most predominant domain affected (78.9%) in female patients visiting a clinic of female sexual dysfunction.[14] This is in contrast to the findings of Elsamra S (2010), in which libido and lubrication disorder were the most impaired domains. Cultural factors may cause difficulty for Indonesian women to communicate sexual conditions with their partner. This is coupled with access to sexual information that is still considered taboo, and lack of knowledge so that women tend to submit to whatever treatment/ego of the husband, resulting in lack of sexual satisfaction. Early exposure to sexual material is thought to cause difficulty in libido and arousal in Western populations.

Sexual dysfunction in the medical group, which was found to be consistently higher on all domains, can be associated with high work stressors. A study by Mishra (2006) reported correlation between stress and emotional problems with decreased sexual activity.[10] Age was found to have no effect on the prevalence of sexual dysfunction, in line with the research by Kamil ST (2006),[14] and Valadares (2008).[15] However, there was significant correlation between age and satisfaction. Satisfaction dysfunction increased in women 41-50 years (52.9%) because onset of menopause, resulting in decreased function of sexual organs. The age category of 51-60 years could not provide meaningful assessment due to the small number of respondents. There were no relationship between education and the use of birth control to sexual dysfunction, which similar to the results of Kamil ST (2006).

In the medical group, the night shift was found to be a protective factor from sexual disorder. Night time work habits may accustom subjects to activities in the evening, thus sexual activity can become more enjoyable. Fatigue experienced post-activity is also thought to increase the pleasure of sexual intercourse. A similar study with a larger sample size and broad population should be made in the future to further assess other related factors.

CONCLUSION

The medical profession has high potential to experience sexual dysfunction. Night shift was associated with the prevalence of sexual dysfunction in women in the medical profession. No relationship with other factors were found.

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