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Research Article

Assessment of prevalence of sexual dysfunction in the Female Staff Working in Public Hospitals of Shoushtar in 2017

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Running title: sexual function in the Female Staff Working in Hospitals

ABSTRACT

Introduction: Sexual dysfunction caused serious problems in the family and quality of life of individuals, which is considered an important factor in people's anguish.resent study aims to assess of prevalence of sexual dysfunction among female staff working in public hospitals of Shoushtar in 2017.

Methods: This study is a cross-sectional research, which is conducted by census method among 130 female staff working in public hospitals in Shoushtar. Data were collected bya Female Sexual Function Indexquestionnaire. Data were analyzed using SPSS software version 16, and by the methods of mean descriptive statistics, standard deviation and variance analysis test.

Findings: There was no statistically significant relation between the ages of the person, the spouse's age, education of the individual, number of children, Duration of marriage, the overtime, experience and sexual function($p>0.05$). There was statistically significant relation between, the spouse's jobs, education of her husband and sexual function($P<0.05$). 76.2% were with sexual dysfunction. 23.8% werehave optimal sexual performance. There was no statistically significant relation between the type of job of a person and the level of her Sexual Function ($p > 0.05$).There was no statistically significant relation between the type of job of a person and the level of her Sexual Function ($p > 0.05$).

Discussion: Despite the findings of this study that reported no relation between person's job and the level of their sexual function .Therefore, Sexual dysfunction in women working noteworthyphenomenon is common and, therefore, should be to identify and limit its risk factors.

Key words: Female Sexual Function Index, hospital's staff, women

INTRODUCTION

One of the most important philosophies of marriage is to achieve peace. This relaxing relies on several factors; one of the most fundamental factors is healthy sexual relationship (1) which is considered as one of the most important factors of marital happiness (2). Sexual response refers to physiological reactions shown by individual after sexual stimulation which includes four phases: sexual desire, arousal, orgasm and remission (3). The World Health Organization considers sexual health as a sign of physical, mental and social health in connection with sexual activity (4) and defines sexual dysfunction as ways in which one is not able to participate in a sexual relationship as he wishes (5). Also, sexual health is considered as an

important aspect of public health, especially women's health (6), so that sexual dysfunction is regarded an important concern for public health (7). Although it is difficult to have precise estimate of the prevalence of sexual dysfunction, current statistics show that about 19 to 45 percent of women suffer from at least one sexual problem (8-10). Bernnard (2002) considers sexual dysfunction as one of the most common problems which can be treated in modern societies and reports its prevalence in women between 30 and 50 percent (11). In a study conducted by Mitchell (2013), sexual dysfunction is reported %51.2 and %41.6 respectively in women and men (12). Research showed that out of %43 of women with sexual dysfunction, 25-32 percent experience sexual relationship with no pleasure, 22-86 percent of them are still unable to reach orgasm and 8-22 percent of themhave pain during sexual intercourse (13). Very few studies have focused on the prevalence of sexual dysfunction in Iran. In these studies, the highest prevalence of sexual dysfunction in women of reproductive age relates to Arak (%64) (14) and Sabzevar (%63.2) (15) and the lowest rate is reported in Babol (%19.2) (16)and Kohgiluyeh and Boyer-Ahmad (%8.5) (17).Ramezani, et al. have reported prevalence of sexual dysfunction and sexual satisfaction respectively (%64) and (%23) (14). A study conducted by Foroutan, et al. (2009) on investigating sexual dysfunction among divorce applicant couples showed that %77 of women suffer from sexual dysfunction (18). It seems that prevalence of sexual dysfunction is more in women. However, the difference in the prevalence of sexual dysfunction among women in various articles can be due to demographic characteristics of the population studied, the instrument used and shame and modesty of women in the expression of sexual problems. Optimal sexual satisfaction plays an important role in the development of human personality and personal and social health and achieving peace and comfort (19). Since in addition to individual life, sexuality is effective on the relationship between partners and all people in the community (20), it seems that ignoring sexual instinct in humans leads to irreparable consequences, so that it causes disturbance in emotions, personality and social functioning. In most cases, sexual dysfunction and sexual dissatisfaction among couples lead to the collapse of family foundation. Physical and psychological pressures resulted from unfavorable satisfaction ruin individual sexual desires, impair his health, reduce his empowerment and creativity and lead to a sense of deprivation, insecurity and lack of happiness, social problems and crimes, sexual assault and mental disorders (19). On the other hand, sexual function is an important aspect affecting the quality of life, so that knowledge and awareness of alterations and sexual dysfunction are considered essential (21). Therefore, investigating couples' reactions and their sexual behavior, especially in women are of high priority (22).Mirtaki(2004) consider many factors such as emotional problems, marital status, lifestyle and aging effective on the incidence of sexual dysfunction (23).Salehzadeh also considers different factors effective on desires, performance and sexual behavior which some of them are physiological, anatomical, psychological, social, cultural and occupational factors (24). Due to cultural issues that many women are reluctant to talk about their sexual problems, it is predicted that statistics achieved will be much lower than the actual figures. Therefore, sexual problems are raised as widespread health problems among Iranian Women. These disorders are implicitly observed in the daily behavior of individuals as family and social conflicts and undue anxiety and lack of appropriate treatment causes chronic symptoms, stress, self-orientation and feeling guilty. Inattention to this issue leads to social problems such as divorce, crime, offense, drug addiction and mental and physical diseases which threaten public health (25). However, early diagnosis and providing effective treatment methods along with proper education about sexuality to the couples can prevent many above-mentioned problems and result in better quality of marital life (26). Since the prevention of crime and sexual perversion are priorities of the Ministry of Health, and on the other hand, due to inadequate attention to sexuality and

according to this category that apparently, little research have been conducted in relation with sexual dysfunction in the country, the researchers decided to investigate the prevalence of sexual dysfunction in women working in public hospitals of Shoushtar to improve women's health, particularly their sexual health.

METHODS

This analytic-cross-sectional study was conducted in 2016 on 130 staffs working in all sectors of public hospitals in Shoushtar (Al-Hadiand Khatam al-Anbia hospitals). They were working in wards of maternity, women surgery, neonatal intensive care, neonatal, operating room, laboratory, emergency, nursing office, thalassemia, radiology, dialysis, endoscopy, surgery, pediatrics, internal medicine, intensive care unit (ICU) and cardiac care unit (CCU). Sample size was considered 130 using census method. Inclusion criteria included: Being Iranian and living in the city of Shoushtar, being a member of the hospital medical staff, aging between 20 and 50, married, being monogamous, having a stable life with her husband, passing at least one year of marriage, having sexual relationship within last 4 weeks and being interested in participating in the study. Postmenopausal and pregnant women, women with a history of infertility, those suffering from known physical and mental diseases, women with family debates, drug and alcohol abuse, suffering from illness affecting sexual activity in couples such as medical problems (cardiovascular problems, hypothyroidism and hyperthyroidism, epilepsy, diabetes, respiratory disorders, cancer and etc.) and psychological disorders (such as depression or other mental problems, being treated with antidepressants and other known drugs affecting mental), and women who use drugs to treat sexual problems and anomalies and genital injuries were excluded from the study. Data were collected using demographic and female sexual function index (FSFI) questionnaires. They were distributed among those who were interested in participating in the study and they were asked to complete them carefully. Then, questionnaire completed were gathered by the researcher. The first part of the questionnaire was assessing personal characteristics of subjects such as individual age, age of spouse, woman's and her husband's level of education, number of children, age of marriage, work experience, job, overtime rate, working hours per week and employment status. The second part includes female sexual function index (FSFI) developed by Rosen, et al. in 2002 (27); it is a six dimensional questionnaire assessing female sexual function by 19 questions about sexual desires, sexual stimulation or arousal, vaginal moisture, orgasm, sexual satisfaction and pain. (1 to 5 points) are regarded for each question in terms of sexual desire and (zero to 5 points) are considered for dimensions of sexual stimulation or arousal, vaginal moisture, orgasm, sexual satisfaction and pain. Individual score in each section will be calculated by sum of scores of questions related to that part and multiplying the sum of scores in coefficient of each part. The final score less than 12 indicates poor sexual function, score from 12.1 to 24 shows average sexual function and score from 24.1 to 36 represents optimal sexual performance; generally, higher score indicates better sexual function.

Validity and reliability of above-mentioned questionnaire was investigated in Iran by Mohammadi, et al. in 2008 to determine female sexual function index (28).In this questionnaire, there is a significant difference between total score of the scale and each of its dimensions in two groups with and without sexual dysfunction, indicating the validity of this instrument. Reliability of the scale was calculated through analysis of stability or internal consistency coefficient. Cronbach's alpha coefficient in all subjects for each of dimensions and total scale was reported 0. 89 intheresearch carried out by Rosenand 0.70 and more respectively in the study conducted by Mohammadi(28).Data were analyzed using SPSS 16 and descriptive statistics (mean and standard deviation) and t-test, Pearson correlation coefficient and analysis ofvariance. P-value was considered significant at level less than 0.05. In this study, all ethical considerations and coordination with hospital authorities were observed. Objectives of the

study were fully explained to the participants and confidentiality of information was ensured and if the participants wished they could be informed of the research results.

FINDINGS

In this study, 130 women working in different parts of public hospitals in Shoushtar were investigated. The mean age of individuals was (34.38 ±6.47); approximately 47 percent of women aged 30-40 and the mean age of their husbands was (37.63 ±6.41). The mean duration of marriage was (9.91 ±6.26). The mean of work experience was reported (9.08 ±5.85), the rate of overtime was (27.57 ± 19.09) and the mean of working hours per week was calculated (49.34 ±10.53) that working hours per week was estimated 40-50 hours almost in 40 percent of people. Approximately, employment status of 46 percent of people was contractual and official. About 58.3 percent of women had husbands with government job. According to Kolmogorov-Smirnov test, the data were normally distributed (k-s=0.074, p-value=0.08). The mean of sexual function was (22.79 ± 6.47); the lowest and highest scores of sexual functions were respectively 2 and 36. (%24) 31 women showed optimal sexual function and (%76) 99 of them had poor sexual performance (Table 1).

Table 1: Mean and standard deviation of sexual function in terms of other variable

Variable		(Percent) Frequency	Mean ± standard deviation
Variables(Percent) Frequency	**Mean ± standard deviation**		
The age of the person	**20 – 30**	**43(33.1)**	**23.52±5.63**
	30 – 40	**61(46.9)**	**22.37±7.34**
	40-50	**26(20.0)**	**22.57±5.65**
age of their husbands			
	20-30	**20(15.4)**	**25.03 ±3.75**
	30-40	**68(52.7)**	**22.10 ± 6.95**
	40-50	**41(31.5)**	**22.83±6.64**
The number of children	**0**	**23(16.9)**	**22.20±6.70**
	1	**37(28.5)**	**23.62±6.10**
	2	**49(37.7)**	**22.81±6.51**
	3 and more	**21(16.2)**	**21.94±7.01**
The number of years	**less than 5 years**	**36(28.6)**	**23.63±5.04**
of marriage	**5 – 10**	**37(29.4)**	**22.46±7.27**
	10 – 15	**30(23.8)**	**22.41 ±7.28**
	More than 15 years	**23(18.3)**	**22.87 ±6.51**
Work experience	**less than 5 years**	**33(26.8)**	**21.51±6.46**
	5 – 10	**48(39.0)**	**23.83±5.85**
	More than 10 years	**42(34.1)**	**22.70±7.01**
The amount of overtime	**less than 5 hours**	**73(56.2)**	**21.75±7.41**
	5 – 15 hours 18(13.8)	**25.49±3.55**	
	15 – 25 hours 16(12.3)	**21.70±4.81**	
	More than 25 hours	**23(17.7)**	**24.74±5.10**

Weekly working hours	**less than 40 hours**	**29(22.7)**	**23.71±6.16**
	40 – 50 hours 52(40.6)	**23.09±7.58**	
	More than 50 hours	**47(36.7)**	**21.94±5.38**
Employment Status	**Formal**	**73(56.2)**	**23.43±6.50**
	Contractual	**40(30.8)**	**21.31±7.16**
	Projective	**17(13.1)**	**23.52±3.71**
Education of the person	**Associate Degree**	**27(21.3)**	**20.74±6.45**
	Bachelor	**96(75.6)**	**23.31±6.55**
	Higher degree of Bachelor	**4(3.1)**	**22.88±5.37**
Education of their husbands	**lower Degree**	**2(1.5)**	**29.40±0.14**
	Degree	**40(31.7)**	**21.08±6.89**
	Associate Degree	**17(31.5)**	**20.80±7.72**
	Bachelor	**55(43.7)**	**23.28±5.77**
	Higher degree of Bachelor	**12(9.5)**	**26.83±4.44**
Job of the person	**Midwife**	**19(14.6)**	**24.74±4.22**
	Nurse	**64(49.2)**	**22.80±5.80**
	The personnel of operating room	**24(18.5)**	**20.33±7.50**
	Laboratory sciences	**13(10.0)**	**24.44±10.14**
	Health worker and nurse aid	**5(3.8)**	**19.08±2.22**
	Radiologist	**5(3.8)**	**26.40±2.35**
Job of their husbands	**self-employment**	**53(41.7)**	**20.69 ±7.49**
	governmental	**74(58.3)**	**24.14 ±5.22**

In the present study, there was no significant relationship between individuals' age and their sexual function; however, as shown in tables, individuals' sexual function is reduced by increasing age (r = 0.052, p-value = 0.556). There is no statistically significant relationship between spouse's age and sexual function (r = 0.553, p-value = 0.553). There was no statistically significant relationship between number of children and sexual function; however, people with 3 children and more have had less sexual function (r = 0.018, p-value = 0.835). There was no statistically significant relationship between years number after marriage and sexual function; however, those with marriage age less than 5 years have had better sexual function (r = 0.344, p-value = 0.085). The relationship between work experience and sexual function was not statistically significant (r = 0.005, p-value = 0.956). The overtime rate does not affect sexual function (r = -0.046, p-value = 0.733). There was no statistically relationship between working hours per week and sexual function; however, people with working hours more than 50 per week have had poor sexual function (r = 0.031, p-value = 0.738). Employment status has no significant effect on sexual function, but as shown in tables, sexual function in people who their employment is contractual is less than those with official status (F = 1.517, p-value = 0.223). Level of education has no effect on sexual function (F = 1.651, p-value = 0.196), but the spouse's education affects sexual function (F = 2.999, p-value = 0.021), so that people with spouse's education less than diploma and higher than bachelor's have had better sexual function than other education groups. Individuals' job has no effect on sexual function (F = 1.908, p-value = 0.098), but the spouse's job affects sexual function, and as it is shown those who their husbands have government job have had better sexual function than women who have husbands with self-employed occupation (T = 3.053, p-value = 0.003) (Table 1 and 2).

Table 2: the relationship between sexual function and other variables.

Variable		Statistic	P- value
The age of the person		r=-0.052	0.556
The age of their husbands		r=-0.053	0.553
The number of children		r=-0.018	0.835
The number of years of marriage		r=-0.085	0.344
Work experience		r=0.005	0.956
The amount of overtime		r=0.046	0.733
Weekly working hours		r=-0.031	0.728
Employment Status	Formal Contractual Projective	F=1.517	0.223
Education of the person	Associate Degree Bachelor Higher degree of Bachelor	F=1.651	0.196
Education of their husbands	lower Degree Degree Associate Degree Bachelor Higher degree of Bachelor	F=2.999	0.021
Job of the person	Midwife Nurse The personnel of operating room Laboratory sciences Health worker and nurse aid Radiologist	F=1.908	0.098
Job of their husbands	self employment governmental	T=3.053	0.003

DISCUSSION

In the present study, there was no significant relationship between individuals' age and their sexual function; however, as shown in tables, individuals' sexual function is reduced by increasing age. Trompeter, et al. (2011) stated that risk of sexual dysfunction is increased and sexual satisfaction is reduced in old women (29).A review of studies on investigating the prevalence of sexual dysfunction in women, including studies of Bremen (2003)(30), and Hisasue et al. (2005) on 2095 Japanese women (31), Ponholzer study (2005) (32) on 703 Austrian women, Palacios(2009) (10) and finally Grazoitin(2009) (33) shows that prevalence of sexual dysfunction in women is enhanced by increasing their age. A review of related studies conducted in Iran indicates that sexual dysfunction is common among married women and factors such as aging are effective in

most studies (17, 34-38). In a research carried out by Mazinani et al. (2012), there was a significant relationship between women aging and prevalence of sexual dysfunction; this finding is consistent with the results of the present study (39).

There was no statistically significant relationship between years's number after marriage and sexual function; however, those with marriage age less than 5 years have had better sexual function. In most related studies conducted in Iran, the number of years after marriage affects sexual dysfunction in women (17, 34-38). In a study conducted by Bakouei et al. (2007), there was no significant relationship between years after marriage and sexual dysfunction; this finding is similar to the results of the present research (16).In studies carried out by Mazinani et al. (2012) (39), Karbasi et al. (2005) (37) and Salmani et al. (2009) (40), a significant relationship was observed between duration after marriage and sexual function; namely, duration after marriage has inverse effect on sexual function in women. . Bolourian&Akelechi (2005) concluded that there is a significant relationship between period of marital life and sexual dysfunction among couples in the way that the more, the period of marital life, the less, the problems of sexual relations ($p = 0.021$) (41). This finding is not consistent with the results of the present research. It may be due to this fact that the more, the period of marital life, the higher, couples' understanding from favorite sexual needs of each other, and consequently, the better sexual function.

No significant relationship was observed between level of education and sexual dysfunction in women. This relationship was not significant in studies conducted by Karbasi et al. (2005), Shayan (2015) and Mazinani et al. (2012); this finding is consistent with the results of this research (37, 39, 42). However, in a research carried out by Cayan et al. (2004) on investigating the prevalence of sexual dysfunction in women and its potential risk factors on 179 Turkish women aged 18-66, %46 of women were suffering from sexual dysfunction and factors such as low level of education were considered as important risk factors associated with sexual dysfunction (43); this finding is inconsistent with the results of this research. It may be due to approximate homogeneity of study population in terms of education in this study and research conducted by Karbasi and Mazinanicompared to Cayanstudy.

Also, Bakouei et al. (2007) stated in their study that increase in women's education has a significant relationship with sexual dysfunction in women; the difference between this research and results of the present study can be due to cultural factors governing the research population (16).

There was no statistically significant relationship between number of children and sexual function; however, people with 3 children and more have had less sexual function. The results obtained from studies conducted by Bakouei et al. (2007) and Shayan (2015) showed that increase in the number of children has a significant relationship with sexual dysfunction in women which is consistent with the results of present research (16, 42).

Spouse's education affects sexual function, so that people with spouse's education less than diploma and higher than bachelor's have had better sexual function than other education groups; however, in studies conducted by Bakoueiet al. (2007) and Shayan (2015), no significant relationship was reported between spouse's education and sexual dysfunction (16, 42) which is inconsistent with the results of the present research. It can be due to approximate homogeneity of study population in terms of education in research conducted by Bakouei and Shayan (in Iran) compared to the present study.

In this research, there was no significant relationship between sexual function and husband's age. Therefore, the correlation between husband's age and sexual function was inverse, and sexual dysfunction in women increases by increasing husband's age. The results obtained from studies prepared by Shayan et al. (2015) (42), Sidi et al. (2007) (44), Farahmand et al. (2012) (45), Etesami Pour et al. (2011) (46) and Bakhshayesh et al. (2010) (47) are consistent with the findings of the present

research and approve it. The research developed by Salmani et al. (2010) on investigating factors associated with orgasm disorders in women showed that there is a significant relationship between orgasm disorders in women and the increase in husband's age, so that orgasm disorders increase by increasing husband's age (40).

In this research, there is a significant relationship between spouse's job and sexual function, and women that their husbands have government job have had better sexual function. The results of Bakouei et al. (2007)research indicated that there is a significant relationship between spouse's job and sexual dysfunction. It may be due to less stress and less working time in government occupations than self-employed ones. No relationship was observed in Shyan (2015) study which is inconsistent with the findings of the present research (42); this difference can be due to cultural factors governing the research population (16).

In this research, there was no statistically relationship between working hours and overtime per week and sexual function; however, people with working hours more than 50 per week have had poor sexual function. Also, employment status has no significant effect on sexual function, but as shown in tables, sexual function in people who their employment is contractual is less than those with official status. The results of this research and study conducted by Khalili et al. (2015) on evaluating marital satisfaction and factors associated with it in nurses showed that some occupational factors such as work experience and employment status have significant relationship with marital satisfaction in nurses and as a result, these factors can affect marital satisfaction; this finding is consistent with the results of the present research (48).

In this research, %24 of women had better sexual function and %76 of them had poor sexual function. In Shayan (2015) research, the results showed that the majority of women (%91.9) had sexual dysfunction (42). The findings of YekeFallah (2009) study indicated that (%93.1) of women in Qazvin suffer from sexual dysfunction and only (%21.5) of them was satisfied with their sexual activity (35) which is consistent with the present study.

In this research, no significant relationship was observed between different occupational levels and personnel sexual function ($p > 0.05$). Shayan (2015) research did not show a significant relationship between women's job and sexual dysfunction which is consistent with the present study (42).The research results demonstrate that sexual dysfunction in women such as what has been reported on different samples in internal and external research, is a significant and common phenomenon. Since people encounter socio-cultural constraints when dealing with this issue, in many cases, lack of information and skill deficiencies in this field lead to marital disputes and other conflicts. Hence, direct identification and diagnosis of these disorders and awareness of factors affecting this process can help solve couples problems and improve their relationship. Since this study was conducted on women population, it is recommended that a similar research be extensively carried out on investigating the prevalence of sexual dysfunction in Iranian men population in order to complete information. Therefore, the results obtained can be used in educational and medical proper planning in the form of educational-treatment approaches, including counseling before marriage, training sexual issues and couple and sex therapy based on culture of the society, because desired sexual function can lead to increasing public health, marital satisfaction and ultimately maintaining family foundations.

CONCLUSION

Sexual dysfunction in women working is a common and significant phenomenon; therefore, its causes should be identified and limited. Necessary training in this regard to personnel working in hospitals helps promote healthy sexual function and strengthen the emotional and physical relationship among couples.

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