

## **Study of Sexual Pain Disorders and Related Factors in Women Referred to the Health Centers Covered by Shahid Beheshti University of Medical Sciences**

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**Abstract:** Sexual pain disorders are subgroups of sexual dysfunctions which include the two major groups of dyspareunia and vaginismus. Given that one of the purposes of marriage is sexual relationship, dyspareunia is one of the factors that lead to avoidance of sexual experience, limited sexual relationship and complete failure of marriage. Due to importance of the subject, a study was conducted with the purpose of sexual pain disorders and related factors in women referred to the health centers covered by Shahid Beheshti University of Medical Sciences in Tehran in 2009. This was a descriptive study on 400 women who referred to the health centers covered by Shahid Beheshti University of Medical Sciences. To collect data, a questionnaire was used including 126 questions (questions on demographic factors, fertility, history of diseases, a part of Scl-90 about measuring phobic anxiety and anxiety, questions about sexual knowledge and attitude and the FSFI questionnaire) and information form of clinical examination. Multistage sampling method was used for sampling. Validity of the information forms was evaluated by content validity and their reliability was evaluated by test-retest method. To determine the reliability of clinical examination, intra-observer reliability method was used. Using descriptive and inferential statistical tests, data analyses were performed with a confidence level of 95%. The results indicated that 45.2% of the women had dyspareunia and 1.5% of them had vaginismus. Due to related factors to vaginismus in all the 6 cases through 400 samples (1.5%), levels of phobic anxiety and general anxiety was observed and clear and pathological anxiety was observed in 2 patients that indicate the interference of psychological factors in creation of vaginismus while no physical factors such as diseases, history of surgery or medication therapy was observed in them. In addition in all cases, the fear of entrance of external object to vagina during intercourse was from related factors to vaginismus and there was no sexual harassment history or unpleasant sexual memory observed in women.

**Key words:** Sexual pain disorders, related factors in women, vaginismus, physical, reliability

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### **INTRODUCTION**

Affecting individual and social life of humans more than anything else, one of the greatest issues is sexuality and satisfaction of this desire effectively has a decisive role in development of human personality and separation of this tendency from behavior of any human is inevitable. Establishment of sexual relationship is considered to be one of the most basic aspects of marital relationship (Nejati, 2001) and sexual act is a part of health, life quality and public desirable condition and it's a complementary part of individuals affecting from birth to death, hence, sexual dysfunction has various effects on lives of sufferers and it affects intrapersonal relationships and marital life. One of these disorders is pain. Venereal

chronic pain has a very bad effect on the continuity of sexual intercourse and even the whole marital relationship of both parties (Mohammadi, 2004). Sexual pain disorders are through subgroups of sexual dysfunction (Kaplan, 2007) and unfortunately, painful intercourse is one of the most common sexual dysfunctions of women that affect about two thirds of individuals during lifetime. Vaginismus is an involuntary reflex appearing with real or criminal efforts to vaginal intercourse. Women with vaginismus usually have intense fear of vaginal penetration with wrong imaginations about anatomy and size of their vagina.

Their fear of injury may be that penetration of something in size of male sexual organ in their vagina may hurt them. This disorder mostly affects the educated

and high social class women. A woman who feels psychologically hurt may retaliate against this reaction (Kaplan, 2007). Among physical factors, cases like after a delivery, a very painful intercourse or an abortion can be pointed out. Surgeries on some parts of the body affect significantly on sexual disorders and after surgery of female external genitals, sexual problems are common due to body image disturbance. In October 1998, the American Foundation of Urologic Diseases divided the human sexual response into four phases (Pour, 2001). Sexual response cycle takes place through complex interactions of psychological, environmental and physiological factors. The first phase of sexual response cycle is the phase of interest and tendency and four consecutive stages come along subsequently including the first phase as sexual excitement, the second phase as plateau, the third phase as orgasm and the fourth phase as resolution. Sexual dysfunctions and concerns are very common in general population and almost two thirds of women who were examined had concerns about their sexual desire, on the other hand, human behavior is diverse and complex interaction of several factors determine it. This behavior is influenced by relationships with others, living conditions and culture of the surrounding environment. Decrease of libido loss occurs for several reasons. Personal stress, excitement, fatigue, intrapersonal conflicts, sickness, side effects of drugs, pain and changes in body image of individuals are common causes of sexual activity change. Stress and anxiety that individuals face in everyday life can affect on their interest in sexual activity and can also cause disruptions. Sometimes, the individuals who struggle with everyday pressures of work and family responsibilities don't deal with sexual affairs due to fatigue and lack of enough energy (Jahanfar, 2001). In conducted studies in Iran, 26% of Iranian women experience pain during sexual intercourse (Safarinejad, 2006) and this rate is reported 34.8% in Kohgiluyeh and Boyer-Ahmad (Gashtasbi, 2007), 54.5% in Tabriz and 10% in Tehran and Vaginismus is reported 8% in Tehran (Shokrollahi *et al.*, 1996). Babaeian *et al.* (2015) proposed a tracking method which can monitor the activity of humans in video sequences. Through the factors which have significant relationship with painful intercourse, career, education, age at marriage, sexual abuse in childhood (Safarinejad, 2006), occupation, age, level of education, method of contraception (Gashtasbi, 2005), number of pregnancy and childbirth, history of vaginal delivery of macrosomic child, heavy work, suffering chronic lung diseases, diabetes, arthritis, constipation, cervical length and prolapse of pelvic organs are pointed

out. In the study of Safarinejad and Gashtasbi, career and age had significant relationship with painful intercourse while there wasn't a significant relationship between age, job, weight, blood pressure and delivery with episiotomy with painful intercourse in the study of Sobh Gol. In conducted studies in America, painful intercourse is reported 7-19 and 23% in Brazilian women and in the studies of Abdo, level of education had an inverse relationship with dyspareunia and age was a protective factor for this disorder. For any reason, sexual dysfunction has many negative consequences and it has a close relationship with social problems such as crimes, sexual assaults, mental illnesses and divorce (Jahanfar, 2001). Results of research in Iran indicate that 40% of divorces are due to lack of sexual satisfaction (Dezhkam, 2001). Considering the fact that speaking about sex is considered a taboo, conducted studies indicate that many women hadn't have requested for treatment despite of symptoms of painful intercourse. Therefore, it seems necessary to conduct a study to investigate "pain disorders and related factors" and according to collection of required information about the related factors with these disorders, a situation can be provided to prevent, correct or educate women in primary levels of health care and lead the society to healthy sexual relationships and help them before a warm family center is ruined due to lack of knowledge about sexual affairs or the shame of expressing it. Since, midwives are closely associated with the women of society and they are the first referred ones in initial levels of health care such studies are able to be problem solvers by increasing the level of awareness and sexual knowledge of women in many issues. The researcher's aim of this study was determining the frequency of sexual pain disorders and related factors in women referred to the health centers covered by Shahid Beheshti University of Medical Sciences in Tehran in 2009.

## MATERIALS AND METHODS

This study was a descriptive-correlational research conducted to investigate sexual pain disorders and related factors in women referred to the health centers and hospitals covered by Shahid Beheshti University of Medical Sciences. In descriptive studies, the researcher observes current situation and then collects the information and presents it regularly and summarily to create a clear picture of a specific situation (Abed and Akbari, 2005). Research population is all the units with common characteristics and based on what the researcher

considers and the samples taken from it and the results are to be generable to society. In this study, the research population includes all the women referred to the health centers covered by Shahid Beheshti University of Medical Sciences in Tehran, 2009. In this study, samples were through the individuals consistent with research criteria and after a pilot study among the women referred to the health centers covered by Shahid Beheshti University of Medical Sciences, number of 400 individuals was chosen by multistage sampling method and convenience sampling method. The research environment was the health centers covered by Shahid Beheshti University of Medical Sciences in three regions of East, North and Shemiranat. In Shemiranat region, the clinics were: Chizar, Darakeh and Latyan dam, in North region, the clinics were: Nader clinic, Saheb Al Zaman (AJ), Hazrat Roghayeh (PBUH), Imam Hassan Mojtaba (PBUH), 14 Masoom (PBUH), Kalami and Hakimieh, in East region, clinics were: Afsariye, Besat Alnabi, 12 Bahman Ghiasi, Safa and Masoudiye that were chosen randomly. To collect the research data in this study, questionnaire and examination form were used including the items below.

**The first part:** Demographic and Gynecology data and history of internal diseases (including diabetes, lung diseases, thyroid, cardiovascular and blood pressure) and history of surgery, cancer and medicines which contained 53 questions.

**The second part:** A part of the SCL-90 questionnaire in which fear and anxiety in the research subjects were examined and contained 17 questions.

**The third part:** About 11 questions about awareness and 19 questions about subjects' attitude.

**The fourth part:** About 19 questions about sexual function which were assessed by the FSFI questionnaires.

**The fifth part:** It was a physical examination form that was recorded by the researcher after the equivalence of examinations (the researcher participated with a gynecologist in examinations of 10 subjects and the responses were assessed by the Spearman test and the correlation coefficient was calculated 96% which is an acceptable coefficient) and it included an examination of the situation of uterus, pelvic organ prolapse, pelvic floor muscle contractile strength, examination of the genital tract abnormalities, examination of painful points on

physical examination, vaginitis, cervical lesion and diagnosis of dyspareunia and vaginismus and hemorrhoids.

In this study, the content validity was used to assess validity. The researcher primarily studied the books on the subject of research and using the latest articles and with the opinions of respected consultant professors and Statistics professors, prepared a questionnaire, then it was assessed by 16 faculty members of the Department of Gynecology and Obstetrics, Midwifery and Psychiatry Shahid Beheshti University of Medical Sciences and 5 subjects of the research population and after collecting the opinions of the mentioned individuals, the necessary corrections were made and the final questionnaire was developed. In the anxiety and fear part and using SCL-90 questionnaire, scoring was done by the Likert's scale and the grading criterion was from 0-4. This spectrum is indicated by none, little, moderate, much and infinity and total scores in each question is considered "0" for the lowest and "4" for the highest. According to method of summing up the scores, the scores of 0-2 were considered for non-patients and from 2-4 were considered for subjects with anxiety and fear. Reliability and validity of this test has been calculated 78-90% before in America by Nanali and they were calculated in Iran by Mirzaie in 1980 with the same results. In attitude measurement part, scoring each phrase was done using Likert's scale with grading criterion of 0-2 and this spectrum was indicated by grades of positive, No comment and negative and finally, phrases with positive attitude were allocated agreed for the score 2, no comments were allocated for score 1 and disagrees were allocated for score 0, phrases with negative attitude were allocated agreed for score 0, no comments were allocated score 1 and disagreed choices were allocated score 2. Therefore, the minimum raw score in attitude measurement part was considered 0 and the maximum score was considered 38 (for 19 questions), also in this part, all values from 0-100 were converted into percentages and scores were placed in three classes of negative attitude, No comment and positive attitude. Therefore, the scores from 0-33% were placed in negative attitude, the scores from 34-66% were placed in No comment attitude and the scores from 67-100% were placed in the class of positive attitude.

In part of awareness assessment, scorings were considered 1 for true scores and 0 for false scores and through the 11 questions, the maximum score was considered 11 and the minimum score was considered 0, then all values from 0-100 were converted into percentages and the scores were divided into three

classes of low awareness, moderate awareness and good awareness, therefore, the scores from 0-33% were placed in low awareness, the scores from 34-66% were placed in moderate awareness and the scores from 67-100% were placed in the class of good awareness.

To determine the reliability of clinical examination, the inter rater reliability method was used. One of the obstetricians of faculty of nursing and midwifery was asked to perform all phases of clinical examinations right after the researcher in 10 subjects and the correlation coefficient due to these examinations was calculated  $r = 96\%$  using the spearman test. To determine the reliability of the questionnaire, the test-retest method was used. Thus, the questionnaire was evaluated twice within 10 days from subjects with characteristics of the research units and the correlation between the responses was assessed. Because the correlation was 89% that is an acceptable limit, it was proved that the questionnaire has the required reliability. To analyze the data, the SPSS 17 Software was used with a confidence level of 95%. To analyze the data in this research, the descriptive and inferential statistics were used. Therefore, descriptive statistics was used to calculate mean and absolute and relative frequency distribution and the results were adjusted for tables and graphs. In the inferential statistics part, the  $\chi^2$ -text, Mann-Whitney test, t-test, Fisher test and the Spearman correlation coefficient were used.

## RESULTS AND DISCUSSION

Table 1 show the distribution of female sample. The t-test didn't indicate a significant relationship between woman's age and dyspareunia ( $p = 0.9$ ). The t-test didn't indicate a significant relationship between spouse's age and dyspareunia ( $p = 0.31$ ). The Mann-Whitney test didn't indicate a significant relationship between number of healthy children and dyspareunia ( $p = 0.4$ ). The Mann-Whitney test didn't indicate a significant relationship between number of unhealthy children and dyspareunia ( $p = 0.33$ ). The  $\chi^2$ -text didn't indicate a significant relationship between religion and dyspareunia ( $p = 0.68$ ). The  $\chi^2$ -text didn't indicate a significant relationship between ethnicity and dyspareunia ( $p = 0.64$ ).

The  $\chi^2$ -text didn't indicate a significant relationship between woman's education and dyspareunia ( $p = 0.2$ ). The  $\chi^2$ -test indicated a significant relationship between spouse's education and dyspareunia ( $p = 0.004$ ). The women with educated spouses have reported less dyspareunia. The  $\chi^2$ -text indicated a significant relationship between woman's job and dyspareunia ( $p = 0.04$ ). The employed women have reported more dyspareunia in comparison to housewives. The  $\chi^2$ -test

Table 1: Distribution of the female samples according to demographic factors with painful intercourse in women referred to the health centers of Shahid Beheshti University of Medical Sciences in 2009

Painful intercourse	Frequency (percentage number)		*p-values
	Yes (n = 178)	No (n = 216)	
Age of woman			0.90
≥ 25	(19.7) 35	(19.0) 41	
26-35	(37.6) 67	(39.4) 85	
36-45	(34.3) 61	(33.3) 72	
≤ 46	(8.4) 15	(38.3) 18	
Mean (SD)	(9.2) 8/33	(8.7) 9/33	
Age of spouse			0.31
≥ 25	(5.6) 10	(9.3) 20	
26-35	(37.6) 67	(34.7) 75	
36-45	(30.9) 55	(36.6) 79	
46-55	(19.1) 34	(16.2) 35	
≤ 56	(6.7) 12	(3.2) 7	
Mean (SD)	(10.4) 9/38	(9.2) 37.9	
Number of healthy children			40/0
Not having children	(25.3) 45	(20.4) 44	
1	(36.0) 64	(36.1) 78	
≤ 2	(38.8) 69	(43.5) 94	
Mean (SD)	(1.0) 1.0	(0.9) 1	
Number of unhealthy children			0.33
Not having unhealthy child	(98.3) 175	(96.8) 209	
≤ 1	(1.7) 3	(3.2) 7	
Mean (SD)	(0.1) 0.02	(0.2) 0.04	
Religion			0.68
Shiite	(96.6) 172	(95.8) 207	
Sunni	(3.4) 6	(4.2) 9	
ethnicity			0.64
Kurd	(9.0) 16	(10.6) 23	
Lor	(10.1) 18	(6.9) 15	
Fars	(62.9) 112	(65.7) 142	
Turk	(18.0) 32	(16.7) 36	
Women's education			0.20
Elementary school	(5.1) 9	(3.7) 8	
Middle school	(11.8) 21	(10.2) 22	
High school	(29.2) 52	(39.4) 85	
University	(53.9) 96	(46.8) 101	
Spouse's education			0.004
Elementary school	(15.7) 28	(5.5) 12	
Middle school	(8.4) 15	(13.0) 28	
High school	(25.3) 45	(31.5) 68	
University	(50.6) 90	(50.0) 108	
Woman's job			0.04
Housewife	(45.5) 81	(56.0) 121	
Practitioner	(54.5) 97	(44.0) 195	
Spouse's job			0.14
Self-employed	(36.0) 64	(41.7) 90	
Salaried	(64.0) 114	(58.3) 126	
Monthly household income (Toman)	0.93		
≤ 200000	(7.9) 14	(3.2) 7	
201 thousand-500000	(33.1) 59	(40.3) 87	
≤ 501000	(59.0) 105	(56.5) 122	

didn't indicate a significant relationship between spouse's job and dyspareunia ( $p = 0.14$ ). The Mann-Whitney test didn't indicate a significant relationship between family income and dyspareunia ( $p = 0.93$ ) (Table 2) having delivery with tools indicated a significant relationship with dyspareunia, using the t-test method ( $p = 0.03$ ). The Women who had given birth by vacuum or forceps had reported more dyspareunia.

Table 2: Distribution of research women according to factors of fertility with painful intercourse in women referred to the health centers of Shahid Beheshti university of medical Sciences in 2009

Painful intercourse	Frequency (percentage number)		*p-values
	Yes (n = 178)	No (n = 216)	
Age at first marriage (years)			0.44
≥ 18	(22.5) 40	(23.1) 50	
19-25	(56.2) 100	(60.2) 130	
26-30	(14.0) 25	(10.2) 22	
31-35	(4.5) 8	(3.7) 8	
≤ 36	(2.8) 5	(2.8) 6	
Mean (SD)	(5.5) 22.6	(4.9) 22.2	
Duration of married life (years)			0.73
≥ 5	(37.1) 66	(31.5) 68	
6-10	(17.4) 31	(21.8) 47	
11-15	(18.0) 32	(21.8) 47	
16-20	(10.7) 19	(8.8) 19	
≤ 21	(16.9) 30	(16.2) 35	
Mean (SD)	(9.4) 11.4	(8.7) 11.7	
Age at first pregnancy (years)			0.39
No history of pregnancy	(21.3) 38	(19.0) 41	
18≥	(11.8) 21	(6.5) 14	
19-25	(40.4) 72	(46.8) 101	
26-30	(20.8) 37	(23.6) 51	
≤ 31	(5.6) 10	(4.2) 9	
Mean (SD)	(10.5) 18.3	(10.2) 19.2	
Number of fertilities			0.20
No history of pregnancy	(23.0) 41	(19.9) 43	
1	(35.4) 63	(28.7) 62	
≤ 2	(41.6) 74	(51.4) 111	
Mean (SD)	(1.4) 1.5	(1.3) 1.6	
Contraceptive method			0.09
lack of contraception	(7.3) 13	(3.2) 7	
Natural	(39.9) 71	(34.7) 75	
Condom	(22.5) 40	(23.1) 50	
Pill	(13.5) 24	(14.8) 32	
Male-female tubal ligation	(7.9) 14	(6.0) 13	
Breast feeding pills-prevention ampules	(2.8) 5	(3.7) 8	
IUD	(6.2) 11	(14.4) 31	
Type of delivery			0.31
No history of pregnancy	(56.7) 101	(49.5) 107	
Natural	(28.7) 51	(37.0) 80	
Cesarean	(14.6) 26	(13.4) 29	
Vaginal delivery status			0.21
No history of vaginal delivery	(68.6) 122	(64.3) 132	
delivery with suture	(28.6) 51	(33.8) 73	
delivery without suture	(2.8) 5	(1.9) 4	
Normal delivery with tools			0.03
No	(91.0) 162	(96.3) 208	
Yes	(9.0) 16	(3.7) 8	
Having breastfed children			0.62
No	(88.8) 158	(90.3) 195	
Yes	(11.2) 20	(9.7) 21	
History of infertility			0.26
No	(92.7) 165	(95.4) 206	
Yes	(7.3) 13	(4.6) 10	
Age of first menstruation			0.020
≥ 12	(30.9) 55	(19.0) 41	
13-14	(46.1) 82	(56.0) 121	
≤ 15	(23.0) 41	(25.0) 54	
Mean (SD)	(1.5) 13.4	(1.3) 13.5	
Age at menopause (years)*			0.36
Lack of menopause	(93.8) 167	(95.8) 207	
35-40	(1.1) 2	(5.0) 1	
41-45	(1.1) 2	(9.0) 2	
46-50	(1.7) 3	(1.4) 3	
≤ 51	(2.3) 4	(1.4) 3	
Mean (SD)	(6.7) 48.1	(5.2) 47.3	

The other fertility factors such as age at first marriage by the (t-test), duration of common life by the (t-test), age at first pregnancy by the (t-test), number of fertilities by the (Mann-Whitney test), method of contraception by the ( $\chi^2$ -text), vaginal delivery status by the (Fisher exact-test), type of delivery by the ( $\chi^2$ -test), having breastfed child by the ( $\chi^2$ -text), history of infertility by the ( $\chi^2$ -text), age at first menstruation by the (t-test) and age at menopause by the (Mann-Whitney test) didn't indicate a significant relationship with dyspareunia.

History of cancer indicated a significant relationship with dyspareunia, using the fisher test ( $p = 0.02$ ). The individuals with history of cancer reported more dyspareunia. Urinary incontinence indicated a significant relationship with dyspareunia using the  $\chi^2$ -text ( $p = 0.007$ ). More dyspareunia was reported in the individuals with urinary incontinence. Pain within two menstruations had a significant relationship, using the  $\chi^2$ -text ( $p = 0.001$ ). The individuals with pain within two menstruations reported more dyspareunia (Table 3).

History of surgery by the ( $\chi^2$ -text), suffering diseases by the ( $\chi^2$ -text) and medicine consumption by the ( $\chi^2$ -text) didn't indicate a significant relationship with dyspareunia. After the examinations by the researcher, muscle tonicity of pelvic floor muscles indicated a significant relationship with dyspareunia, using the Mann-Whitney test ( $p = 0.003$ ). The better tonicity of pelvic floor muscles, the dramatically decrease of dyspareunia. Uterine position indicated a significant relationship with dyspareunia, using the  $\chi^2$ -text ( $p = 0.001$ ). In a uterus with a retroverted position, dyspareunia had increase. Cervical lesions indicated a significant relationship with dyspareunia, using the  $\chi^2$ -text ( $p = 0.004$ ). The individuals who had cervical lesions reported more dyspareunia. The pain due to vulvar vestibulitis indicated a significant relationship with dyspareunia, using the Fisher test ( $p = 0.02$ ). Vaginal dryness indicated a significant relationship with dyspareunia, using the  $\chi^2$ -text ( $p = 0.001$ ). The individuals who had hemorrhoids reported more dyspareunia and hemorrhoids gained a significant relationship, using the  $\chi^2$ -text ( $p = 0.001$ ). Pelvic prolapse using the ( $\chi^2$ -text), improper repair of episiotomy scar using the ( $\chi^2$ -text) and Vaginitis using the ( $\chi^2$ -text) indicated a significant relationship with dyspareunia (Table 4).

Having unpleasant memory of enema, suppository and catheter had significant relationship with dyspareunia, using the Fisher test ( $p = 0.05$ ). The individuals with more unpleasant memories reported more dyspareunia. Having unpleasant experiences before marriage indicated a significant relationship with dyspareunia, using the Fisher test ( $p = 0.02$ ). The

Table 3: Distribution of research women according to physical factors with dyspareunia in women referred to the health centers of Shahid Beheshti University of Medical Sciences in 2009

Frequency	Painful intercourse (percentage number)		*p-values
	Yes (n = 153)	No (n = 207)	
History of surgery			0.960
Removal of the uterus/uterine gland/ovarian/female tubal ligation	(5.2) 8	(4.3) 9	
Prolapse of the uterus and bladder (restored)	(6.5) 10	(7.3) 15	
Other	(3.9) 6	(4.3) 9	
None	(84.3) 129	(84.1) 174	
History of cancer			0.020
Uterine/ovarian/breast	(3.9) 6	(0.5) 1	
None	(96.1) 147	(99.5) 206	
Suffering disease			0.530
Cardiovascular and blood pressure	(5.2) 8	(6.8) 14	
Thyroid problems	(7.8) 12	(5.8) 12	
Diabetes/renal failure/pulmonary/other	(4.6) 7	(2.4) 5	
None	(82.4) 126	(85.0) 176	
Specific medicine consumption			0.180
No	(87) 133	(90.3) 187	
Yes	(13) 20	(9.7) 20	
Urinary incontinence			0.007
No	(83.0) 127	(92.3) 191	
Yes	(17.0) 26	(7.7) 16	
Pain within two menstruation			<0.001
No	(79.1) 121	(92.3) 191	
Yes	(20.9) 32	(7.7) 16	
Pelvic prolapse			0.140
0	(29.4) 45	(29.0) 60	
1	(37.3) 57	(50.2) 104	
2	(28.8) 44	(17.4) 36	
3	(4.6) 7	(3.4) 7	
Improper repair of episiotomy scar			0.750
No	(95.4) 146	(96.36) 200	
Yes	(4.6) 7	(3.4) 7	
Vaginitis			0.060
No	(86.3) 132	(92.3) 191	
Yes	(13.7) 21	(7.7) 16	
Pelvic floor muscle defects			0.003
0 (lack of muscle tonicity)	(26.1) 40	(14.0) 29	
1 (low tonicity)	(34.6) 53	(34.8) 72	
2 (moderate tonicity)	(26.1) 40	(30.9) 64	
3 (good tonicity)	(13.1) 20	(20.3) 42	
Uterine position			<0.001
Ante version	(27.5) 42	(48.3) 100	
Retroversion	(53.6) 82	(32.4) 67	
Lateral	(16.3) 25	(18.4) 38	
Hysterectomy	(2.6) 4	(1.0) 2	
Cervical lesions			0.004
No	(82.4) 126	(92.3) 191	
Yes	(17.6) 27	(7.7) 16	
Pain due to contact stimulus in labia folds			0.02
No	(97.4) 149	(100.0) 207	
Yes	(2.6) 4	-	
Vaginal dryness			0.001
No	(88.9) 136	(97.6) 202	
Yes	(11.1) 17	(2.4) 5	
Hemorrhoids			<0.001
No	(79.7) 122	(94.2) 195	
Yes	(20.3) 31	(5.8) 12	

individuals who had more unpleasant memories reported more dyspareunia. The women who witnessed parents' sexual intercourse indicated a significant relationship with dyspareunia ( $p = 0.001$ ). The women who witnessed rape in childhood indicated a significant relationship with dyspareunia, using the Fisher test ( $p = 0.05$ ). In the

women with fear of foreign body in vagina using the  $\chi^2$ -text and ( $p = 0.03$ ) in the women with fear of damage due to sexual intercourse using the Fisher test and ( $p = 0.001$ ) and in the women with fear of suffering from sexually transmitted diseases caused by sexual intercourse using the  $\chi^2$ -text and ( $p = 0.001$ ), dyspareunia

Table 4: Distribution of research women according to psychological factors with dyspareunia in women referred to the health centers of Shahid Beheshti University of Medical Sciences in 2009

Frequency	Painful intercourse (percentage number)		*p-values
	Yes (n = 63)	No (n = 117)	
An unpleasant memory of enema, suppository or catheter			0.050
No	(96.8) 61	(100.0) 117	
Yes	(3.2) 2	-	
Having unpleasant experiences before marriage			0.020
No	(95.2) 60	(100.0) 117	
Yes	(84.8) 3	-	
A history of harassment or sexual abuse in childhood			0.650
No	(98.4) 62	(99.1) 116	
Yes	(1.6) 1	(0.9) 1	
Witnessing rape in childhood			0.050
No	(96.8) 61	(100.0) 117	
Yes	(3.2) 2	-	
Witnessing parents' sexual relationships in childhood			<0.001
No	(85.7) 54	(99.1) 116	
Yes	(14.3) 9	(0.9) 1	
History of painful genital tract examination			0.320
No	(85.7) 54	(90.6) 106	
Yes	(14.3) 9	(9.4) 11	
Fear of foreign body in vagina			0.030
No	(76.2) 48	(88.9) 104	
Yes	(23.8) 15	(11.1) 13	
Fear of suffering from sexually transmitted diseases caused by sexual intercourse			<0.001
No	(76.2) 48	(94.0) 110	
Yes	(23.8) 15	(6.0) 7	
Fear of harm after sexual intercourse			<0.001
No	(81.0) 51	(97.4) 114	
Yes	(19.0) 12	(2.6) 3	
Fear of lack of attractiveness to spouse			0.160
No	(90.5) 57	(95.7) 112	
Yes	(9.5) 6	(4.3) 5	
Having fear			0.250
≤1.99	(96.8) 61	(99.1) 116	
≥2	(3.2) 2	(0.9) 1	
Having anxiety			0.870
≤1.99	(95.2) 60	(95.7) 112	
≥2	(4.8) 3	(4.3) 5	

had a significant increase. History of sexual abuse in childhood using the Fisher test, History of painful genital tract examination using the  $\chi^2$ -text and fear of lack of attractiveness to spouse didn't indicate a significant relationship with dyspareunia. Investigation of phobic anxiety and stress through the scores of Scl-90 questionnaire didn't indicate a significant relationship with dyspareunia. Method of marriage through proposal and preliminary familiarity indicated a significant relationship with dyspareunia using the  $\chi^2$ -text and ( $p = 0.03$ ). The women who married through proposal reported more dyspareunia. The woman who had satisfaction of sexual relationship reported less dyspareunia using the  $\chi^2$ -text and ( $p = 0.01$ ). Imagining sexual relationship as a painful intercourse indicated a significant relationship with dyspareunia using the Fisher test ( $p = 0.001$ ) and the woman who had this imagination reported more pain during intercourse. Imagining sexual intercourse as brutal action indicated a significant relationship with dyspareunia using the Chi-square

( $p = 0.004$ ) and the women with this imagination reported more pain during intercourse. Embarrassment of getting naked in front of spouse had a significant relationship with dyspareunia ( $p = 0.004$ ). More dyspareunia was reported in the ashamed women. Spouse's sexual relationship with others indicated a significant relationship with dyspareunia using the Fisher ( $p = 0.001$ ), therefore, the women who thought they were cheated reported more pain. Parents' intimacy in childhood caused decrease of dyspareunia after marriage which was investigated by the  $\chi^2$ -text ( $p = 0.04$ ).

Women's satisfaction from sexual intercourse status of spouses was investigated by the  $\chi^2$ -test ( $p = 0.001$ ) and had a significant relationship and the women with more satisfaction reported less pain. Having unusual expectations during intercourse had a significant relationship with dyspareunia using the  $\chi^2$ -text ( $p = 0.001$ ) and the woman whose husbands had other way than vaginal intercourse reported more pain. Living with other

Table 5: Distribution of research women according to socio-cultural factors with dyspareunia in women referred to the health centers of Shahid Beheshti University of Medical Sciences in 2009

Abundance dyspareunia	(Percentage) number		*P-values
	Yes (n =178)	No (n=216)	
Method of marriage			0.030
Proposal	(60.7) 108	(71.3) 154	
Preliminary familiarity	(39.3) 70	(28.7) 62	
Satisfaction with sexual intercourse			0.010
No	(26.4) 47	(16.2) 35	
Yes	(73.6) 131	(83.8) 181	
Personal hygiene of spouse before intercourse			0.070
No	(21.9) 39	(20.4) 44	
Yes	(78.1) 139	(79.6) 172	
Type of drugs			0.140
No	(64.0) 114	(27.2) 156	
Cigarette	(24.2) 43	(20.8) 45	
drugs	(11.8) 21	(6.9) 15	
Type of relationship with spouse			0.180
Good with mutual understanding	(78.1) 139	(85.6) 185	
Arbitrary	(7.3) 13	(5.1) 11	
Aggressive	(5.1) 9	(5.1) 11	
Degrading	(5.1) 9	(2.8) 6	
Other	(4.5) 8	(1.4) 3	
Courtship before intercourse by			0.590
No	(23.0) 41	(20.8) 45	
Yes	(77.0) 137	(79.2) 171	
Sexual intercourse is against purity and chastity			0.240
No	(94.9) 169	(97.2) 210	
Yes	(5.1) 9	(2.8) 6	
Sexual intercourse is contrary to the principles of religion			0.700
No	(85.4) 152	(98.1) 212	
Yes	(14.6) 26	(1.9) 4	
Sexual intercourse is a painful action			<0.001
No	(77.0) 137	(98.6) 212	
Yes	(23.0) 41	(1.4) 3	
Embarrassment of getting naked in front of spouse			0.004
No	(85.4) 152	(94.0) 203	
Yes	(14.6) 26	(6.0) 13	
Sexual intercourse is a brutal action			0.004
No	(88.8) 158	(96.3) 208	
Yes	(11.2) 20	(3.7) 8	
Spouse's sexual relationships with others			<0.001
No	(90.4) 161	(98.6) 213	
Yes	(9.6) 17	(1.4) 3	
Parents' opinion about sex			0.220
A normal action	(57.8) 103	(62.5) 135	
Indecent action	(3.4) 6	(6.5) 14	
Contrary to religious principles	(2.8) 5	(1.4) 3	
I do not know	(36.0) 64	(29.6) 64	
Parents' intimacy in your childhood			0.040
No	(31.5) 56	(22.2) 48	
Yes	(68.5) 122	(77.8) 168	
Satisfaction of intercourse by spouse			<0.001
No	(32.0) 57	(15.7) 34	
Yes	(68.0) 121	(84.3) 182	
Spouse's unusual expectations in sexual relationship			<0.001
No	(57.9) 103	(76.9) 166	
Yes	(42.1) 75	(23.1) 50	
Other individuals' life with your family			0.300
No	(87.6) 156	(94.0) 203	
Yes	(12.4) 22	(6.0) 13	

family members other than spouse and children was significant using the  $\chi^2$ -text ( $p = 0.03$ ) and more dyspareunia was reported by the women. Spouse's personal hygiene, foreplay before intercourse, use of drug and cigarette by spouse, imagination of intercourse as an

action against chastity, parents' opinion about sexual affairs using the ( $\chi^2$ -text) and considering intercourse contrary to religious principals were investigated and there was no relationship observed with dyspareunia (Table 5).



## CONCLUSION

Based on the first goal, the frequency of dyspareunia was determined 45.2% that is different from some studies such as 54.5% Sobh Gol (2003), 26 % Safarinejad and 23.1 but it's 46% consistent with Nasim's study and the reason of this difference can be the difference in societies and cultures of referring individuals to health centers. About the pregnancy, it indicates the significant difference in old ages of marriage and low number of children in comparison to the study by Gashtasbi (2007) and in the study of Sobh Gol, the average number of pregnancies and increase of pregnancy number has a direct relationship with dyspareunia in which the pregnancy number was double of the present samples and in the present study, these averages are lower than other studies which justifies the lack of relationship between fertility factors and dyspareunia. In line with the fourth purpose of the research, that is study of physical factors on dyspareunia, history of pelvic surgery had no relationship with dyspareunia which is consistent with the studies by Safarinejad (2006). In line with the third purpose of fertility factors such as age at marriage, number of pregnancies, age at first pregnancy, duration of married life, type of delivery and having breastfed child had no significant relationship with dyspareunia which is consistent with the researches by Shokrollahi *et al.* (1996) and Roodsari *et al.* (2005). In the present study, high education of spouse was effective on decrease of dyspareunia that indicates higher education creates more knowledge to solve problems and interactions with spouse. Researches have indicated that one of the effective variables on sexual relationship is the sexual attitude that reflexes the maturity level that individuals gain with aspects of sexual desire and romantic affairs. About vaginismus, the most important issue in terms of psychology was anxiety in two cases and high scores of fear and stress in other subjects of the research which indicates the effect of psychological affairs in vaginismus. Educating women about related factors to dyspareunia such as number of deliveries, pregnancies and muscular exercises for pelvic floor can be of primary health care methods, dyspareunia can also be a sign of organic diseases that can be recognized, prevented or cured through in time questioning about painful intercourse.

Finally, correct education of sexual relationships and reforming beliefs and women's attitude about sexual affairs can be the main topics of sexual counseling in health centers. Study of psychological affairs involved in creation of vaginismus is from the cases that need more investigations.

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