The Association of socio-demographic problems on Marital Instability between women with sexual dysfunction and general population in Mashhad, Iran 2017: A Case- Control Study

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Abstract

Background: The present study was conducted with the aim of comparing the effects of different factors affecting marital instability between women from the general population and those with sexual dysfunction.

Methods: This Case Control study was conducted on 96 women with sexual dysfunction and 338 women from the general population who did not report any sexual dissatisfaction in Mashhad, Iran 2017. The sexual function of the participants was assessed using the Female Sexual Function Index (FSFI), and the patients with a score lower than 28 were considered as having sexual dysfunction. Where the duration of female sexual dysfunction was more than six months a Gynecologist visited the case group to rule out gynecological and anatomic problems. The survey assessed the effects of several socio-demographic factors on Marital Instability Index (MII) in the subjects. The data analysis was performed through SPSS version 11.5. The probability values less than 0.05 ($p<0.05$) were considered significant.

Results: The mean score of MII was significantly higher in the case group, compared to the control group (23.02±7.04 and 19.89±9.17, respectively; $P<0.005$). Furthermore, the total score of MII had a significant relationship with the housing state of the couple, physical or mental illness, and expression of emotions by the husbands ($P=0.008$, $P=0.02$, and $P=0.004$, respectively). However, there was no significant relationship between the mentioned factors and MII score in the control group ($P>0.05$).

Conclusion: As the findings of the present study indicated, the socio-demographic problems could have a more destructive effect on the lives of the women with sexual dysfunction, compared to women from the general population. Therefore, it is highly recommended to educate the couples on these factors.

Key words: Marital Instability, Sexual Dysfunction, Sexual Function, Women

Background

Sexual dysfunction is a prevalent, progressive, and age-related disorder, which can negatively affect the quality of life of couples (1). This disorder is reported to be more frequent in women than in men (2, 3). Female sexual dysfunction is the abnormality of interest, arousal, and, orgasm or dyspareunia, lasting for at least six months (4). According to the statistics, sexual dysfunction has affected 22.2-43.1% of the females in the USA (1). In Iran, it is estimated that about one third of the female population have sexual dysfunction (5).

The high prevalence of this dysfunction, combined with its associated social and marriage conflicts, leads to an increased divorce rate among the affected couples, which itself is an indicator of marital instability (3, 6). Many factors can affect sexual function, including psychological, vascular, neurologic, and hormonal disorders (3, 7-9). The psychological and socio-cultural factors as well as the interpersonal relations play an important role in normal sexual function (8-10).

There is a close association between the couples' interpersonal relationships and their sexual activity. Accordingly, one method of marital therapy is the improvement of sexual attraction and romantic love (11). It is also reported that the emotional problems can prolong and maintain sexual dysfunction (8). There are reports indicating the importance of psychological factors and interpersonal relations in normal sexual function. However, to the best of our knowledge, there are no studies assessing the extent that marital instability can affect sexual dysfunction among the women.

The evaluation of the correlation of marital instability and sexual dysfunction can facilitate the identification of the importance of resolving marital problems before attempting to correct the dysfunction using conventional interventions. With this background in mind, the present study was conducted to investigate the relationship between marital instability and sexual dysfunction

Materials and Methods

This Case Control study was conducted on 96 women with sexual dysfunction and 388 women from the general population who did not report any sexual dissatisfaction. Case selection was performed during 2016 but controls were historical and recruited during 2014 from the general population of Mashhad, Iran where validity and reliability were established prior(12, 13). Mashhad is the second most populous city in Iran and is the capital of Razavi Khorasan Province. These 96 healthy married women were referred to the genecology clinics of Mashhad University of Medical Sciences due to sexual dysfunction.

The inclusion criteria were: 1) age of 18-35 years, 2) having a proven husband 21 days in a month, 3) no pregnancy or lactation, 4) lack of any chronic diseases, 5) lack of sexual dysfunction in partner, and 6) no use of specific drugs (including the medications improving sexual function) or alcohol. The duration of female sexual dysfunction was more than six months.

To identify the women with sexual dysfunction, they completed the Female Sexual Function Index (FSFI), which was translated into Persian and was appropriate to be used in the Iranian community culture and validity and reliability were established prior (0/70)(3). This index consists of 19 items covering six aspects of female sexual function. The total score of this index is obtained by summing up the individual values of each item multiplied by the corresponding factor. One physician determined the performance score. Based on this index, women with a score of < 28 were diagnosed with sexual dysfunction and assigned into the case group.

In the next step, a gynecologist visited all case group participants to rule out the gynecologic diseases and anatomical causes of sexual dysfunction and performed breast examination. These women also underwent a pap smear test as well as uterus and ovaries sonography, if necessary. The data were collected using a demographic checklist and the Marital Instability Index (MII)(6). The checklist included the socio-demographic characteristics and factors related to the marriage of the respondents.
The MII consists of 18 items rated on a five-point Likert scale (never=1 to always=5) that were divided into two sections, including parts A and B covering marital instability (14 items) as well as attraction and obstacles in each family (4 items), respectively. The scores of 70 for part A and 4 for part B indicated a higher level of marital instability. On the other hand, the scores of 14 for part A and 20 for part B signify the lowest level of marital instability. We used the Persian version of this index, which was valid and reliable(13, 14) .

The demographic information of the women in the two groups was recorded. These data included age, occupation, education level, religion, income status, level of emotional connection, re-marriage, extra-marital relations, the amount of time spent with spouse at home, history of smoking, drug, and alcohol abuse, etc. After completing the MII questionnaire and demographic checklist for the two groups, their data were compared with each other.
This study was approved by the Ethics Committee of the Mashhad University of Medical Sciences and recorded in the clinical trial center (No: IRCT2015122425681N1). In addition, the interviewers explained the study objectives to the participants and assured them about the confidentiality of their personal data. All precipitants were registered with ID number without name.

Statistical analysis

The normality of the data was checked through the Kolmogorov-Smirnov test. The standard descriptive statistics were applied to describe the basic features of the data. In addition, the independent t-test and Mann-Whitney U test were applied for the data with normal and non-normal distributions, respectively. Furthermore, the correlation analysis was performed using the Pearson and Spearman correlation tests. The confounding factors were in the analysis that the matching was done. All the

tests were 2-tailed, and the p-values less than 0.05 were considered statistically significant. The data analysis was performed using the SPSS version11.5 (SPSS Inc., Chicago, Illinois, USA).

Results

The participants of this study included 434 women, 77.9% (338 subjects) and 22.1% (96 subjects) of whom were placed in the general population and sexual dysfunction groups, respectively. The mean age of the patients was 34.56±11.15 years (age range: 17-82 years). The mean number of parities was 1.63±1.4 (range: 0-8). The frequency of demographic factors is shown in Table 1 (next page). The means of total scores of MII scale were 23.02±7.04 and 19.89±9.17 in the Case and control groups, respectively. Also, Mann–Whitney U test showed the MII mean scores of the two group were significantly different (Z=-4.44; P<0.005). The comparison of subjects based on total score of MII in term of different variables is shown in Table 2.

Age and total score of MII were not significantly correlated in the general population (r=-0.105; P=0.54) and sexual dysfunction (r=-0.045; P=0.66) groups. There was no significant correlation between parity and total MII score in the sexual dysfunction (r=-0.07; P=0.47) and general population (r=-0.71; P=0.19) groups. Furthermore, there was no significant correlation between age at marriage and total score of MII, in the sexual dysfunction (r=0.042; P=0.68) and general population (r=-0.018; P=0.74) groups. There was no significant correlation between age of marriage and total MII score in sexual dysfunction (r=-0.003; P=0.97) and general population (r=-0.103; P=0.058) groups. In addition, there was no significant correlation between engagement duration and total MII score in the sexual dysfunction (r=-0.016; P=0.87) and general population (r=-0.09; P=0.09) groups. There was no significant correlation between marital age gap and total MII score in the sexual dysfunction (r=-0.09; P=0.38) and general population (r=-0.039; P=0.47) groups.

The comparison of the second part of MII between the two groups showed a significant difference in eating with the spouse ($\chi2$=55.41; P=0.015), visiting friends with the spouse ($\chi2$=55.41; P=0.015), cooperating with the housework ($\chi2$=54.88; P=0.017), doing recreational activities with the spouse ($\chi2$=55.41; P=0.015), re-selecting the spouse ($\chi2$=58.26; P=0.015), and having similar religious beliefs ($\chi2$=55.02; P=0.017). Based on the obtained results, there was a significant relationship between total score of the second section of MII and all the items. In the sexual dysfunction group; however, there was no significant relationship between total score of the second section of MII and all the items in the general population, except for the Re-selection of the spouse, Religious beliefs, Suspicion, History of friendship, History of imprisonment items.

In this study, regression analysis was employed to estimate the relationships among effective factors in marital instability, which is shown in Table 3. In the regression model, age, age at marriage, marriage duration, engagement duration, and age gap were assessed to determine the predictors of marital satisfaction, which showed the regression model was significant for one variable (F=13.83; P<0.0005). Based on the regression model, age can predict the variance of marital satisfaction among couples (β=-0.12; P=0.25).

Also, regression model reflected that educational level, occupational status, income, and financial dependence were predictors of marital satisfaction and showed the regression model was significant for two variables (F=15.36; P=0.001). Based on the regression model, occupational status (β=0.55; P=0.001) and income (β=-0.32; P=0.04) can predict the variance of marital satisfaction in couples.

The evaluation of educational level, belief system, socioeconomic status, location, and housing status based on the regression model showed that the model was significant for two variables (F=25.06; P<0.0005). Based on the regression model, belief system (β=0.18; P=0.002) and socioeconomic status (β=0.13; P=0.03) can predict variance of marital satisfaction in couples.
The evaluation of illness, having children, consanguineous marriage, and infertility based on the regression model depicted that the model was significant for one variable (F=14.34; P<0.0005).

Further, regression model was applied to determine the predictive effects of previous divorce, parental divorce, premarital friendship, parental marriage success, and parental interference on marital satisfaction. The obtained results showed the regression model was significant for three variables (F=30.55; P<0.0005). Among these variables, suspicion (β=-0.32; P<0.0005), parental interference (β=-0.19; P<0.0005), and previous divorce (β=-0.120; P=.013) were predictors of marital dissatisfaction.

The assessment couples' interest in each other and husband's violence based on the regression model exhibited that the model was significant for three variables (F=40.5; P<0.0005). Based on the regression model, wife's interest (β=0.18; P<0.0005), husband's interest (β=0.14; P=0.003), and domestic violence (β=-0.36; P<0.0005) can predict the variance of marital satisfaction in couples.
The evaluation of eating with the spouse, visiting friends with the spouse, doing housework, having fun together, religious beliefs, and tendency to marry the same person if they go back in time exhibited that the model was significant for three variables (F=38.95; P<0.0005). Based on the regression model, eating with the spouse (β=-0.17; P<0.0005), doing housework (β=-0.11; P<0.0005), and tendency to marry the same person if they go back in time (β=0.36; P=0.02) can predict the variance of marital satisfaction in couples.

Table 1. The frequency of demographic information

Variables		Sexual dysfunction		General population		χ^2	p-value
		Frequency	Percent	Frequency	Percent		
Education level	Illiterate	1	1.1	5	1.5	55.38	0.01
	Elementary	9	9.5	21	6.3		
	Secondary school	10	10.5	27	8.0		
	Diploma	45	47.4	89	26.5		
	Associate Degree	20	21.1	51	15.2		
	Bachelor's degree or higher	10	10.5	143	42.6		
Job status	Unemployed	6	6.8	11	3.3	53.6	0.02
	Clerk	11	12.5	6	1.8		
	Worker	0	0	117	34.7		
	Student	6	6.8	34	10.1		
	Housewife	56	63.6	129	38.3		
	Self-employment	9	10.2	40	11.9		
Location	Urban	94	98.9	325	97.3	56.02	0.013
	Rural	1	1.1	9	2.7		
Religion	Shia	92	97.9	338	100	--	--
	Sunni	2	2.1	0	0		
Housing status	Yes	44	48.4	202	60.8	56.4	0.012
	No	47	51.6	130	39.2		
Illnesses	Yes	3	3.3	12	3.6	58.7	0.02
	No	88	96.7	323	96.4		
Smoking	Husband	21	21.9	6	1.8	54.5	0.019
	Both	1	1.0	53	15.9		
	Women	0	0	2	.6		
	Neither	74	77.1	273	81.7		
Age of marriage (month)	<18	41	43.2	80	24.0	55.1	0.016
	18-25	49	51.6	206	61.7		
	>25	5	5.3	48	14.4		
Number of children	<2	73	83.9	248	76.5	49.5	0.02
	2-4	14	16.1	59	18.2		
	>4	0	0	17	5.2		
Duration of marriage (month)	<10	46	49.5	163	50.0	53.3	0.02
	10-20	47	50.5	72	22.1		
	>20			91	27.9		
Age gap	<3	41	43.6	125	37.5	58.7	0.007
	3-6	30	31.9	107	32.1		
	>6	23	24.5	101	30.3		

Table 2: the comparison of subjects based on total score of MII in term of different variables

Variables	Group			
	General population		sexual dysfunction	
	Z	p-value	Z	p-value
Housing status	-0.55	0.58	-2.65	0.008
Physical or mental illnesses	-0.36	0.71	-2.26	0.02
Cultural similarity	-2.93	0.003	-4.43	<0.0005
Socio-economic similarity	-2.36	0.18	3.804	<0.0005
participants' parents' marital success	-3.11	0.002	-2.404	0.016
husband's parents' marital success	-0.97	0.33	-1.51	0.13
Parental interference	-2.67	0.008	-3.75	<0.0005
Showing affection toward the spouse	-1.77	0.076	-2.85	0.004
Affection received from the husband	-2.5	0.012	-4.43	<0.0005
Violence	-4.601	<0.001	-5.23	<0.0005

Table 3: Regression analysis among effective factors in marital instability

Predictive variable	B	β	P
Age	-2.04	-0.129	0.025
Occupational status	1.42	0.55	0.001
Income	-2.96	-0.32	0.04
Socioeconomic status	2.22	0.13	0.03
Belief system	3.16	0.18	<0.0005
Suspicion	-2.46	-0.32	<0.0005
Parental interference	-3.44	0.19	<0.0005
previous divorce	-1.66	-0.12	0.013
wife interest	2.4	0.18	<0.0005
husband interest	3.52	0.14	0.003
husband's violence	-6.83	-0.368	<0.0005
eating with the spouse	-1.312	-0.17	<0.0005
doing housework	-.757	-0.11	0.02
tendency to marry	3.704	0.36	<0.0005

Discussion

In this study, we investigated the association between marital instability and female sexual dysfunction. As the findings of the present study indicated, marital instability and its associated factors could affect females who had sexual dysfunction more negatively than the other group. Martial instability and its related factors were more prevalent in the women with sexual dysfunction than control group. But lack of completion the FSFI questionnaire by the control group was a limitation of our study. The control group women announced their sexual satisfaction verbally.

When comparing the two groups, we found that there was a significant difference between the SD group and the control group regarding: eating food together, visiting friends, doing housework, participating in recreational activities, having similar religious beliefs and the tendency to choose the same person as spouse if they could change their decision.

Based on the results of the first part of the MII questionnaire, the housing state of the couple, marital success of the females' parents, and the low expression of affection by their husbands could significantly deteriorate the marital stability of the women with sexual dysfunction. However, these factors were not significantly associated with total MII score in the control group. The results obtained from the second part of the MII and different items of this questionnaire demonstrated a significant difference between the subjects with sexual dysfunction and those with general population.

There was a significant relationship between the MII score and several factors in the case group.

In this study, we found out that performing daily routines with the spouse, such as eating, visiting friends, cooperating in doing housework, and involving in recreational activities were significantly associated with the MII score. Interpersonal relation between the couples and marriage-related factors could also influence MII score. Some of these factors were being suspicious of the spouse, previous divorce, history of premarital relationships, parental interference and domestic violence. There are several studies indicating the important role of the couple relationship on female sexual function and dysfunction. It has been reported that low or absent sexual desire is the most common form of sexual dysfunction among females. One of the main risk factors for lower sexual desire is dissatisfaction with partner relationships (15). Several

other studies have shown similar results. Carvalho et al. demonstrated that low sexual desire could be caused by low dyadic cohesion of the couples, low affection expressed by the husband, and couples' poor sexual and non-sexual communication (16). In addition, the previous studies revealed that relationship dissatisfaction was a major predictor of sexual problems among the females (17). Another group of studies indicated that the intimacy of couples could reduce the negative effects of physical problems. Blair et al. reported that in the women with chronic vulvar and pelvic pain, intimacy with husband reduced the impact of pain on the couple relationships (18). Another study indicated that sexual satisfaction was positively improved with sexual intimacy (19). Overall, there was a strong correlation between the well-being of the interpersonal relations and sexual satisfaction of the females.

In addition, we found that other than interpersonal relationship, socioeconomic factors could also influence MII score and predict marriage success. These factors were, occupational status and income, socioeconomic status, religious beliefs, smoking habits and history of imprisonment. The results reported in the literature are consistent with our findings in terms of the effectiveness of socioeconomic factors in female sexual function. Bagherzadeh et al. indicated that desire, arousal, lubrication, and other aspects of sexual function were affected by the age, education level, economic status, and smoking behavior of the females as well as the age, education level, and occupation of their husbands (20). Several studies have reported the effect of education on sexual interest (21-23). Laumann et al. revealed that a 20% decrease in household finance could lead to reduced interest in sex and lubrication as well as increased dyspareunia among the females (21).

Totally, the findings of the present study revealed that there were several items negatively affecting the marital stability of the females with sexual dysfunction. Additionally, the factors that led to marital instability were more prevalent and in the women with sexual dysfunction, compared to those from the general population.

Implications of the study

In line with the previous studies, we found that several factors were associated with sexual dysfunction in the females with no other known complication. In this study, we investigated the effects of several determinants, which were not assessed in the previous studies. Therefore, it could be concluded that the couples should be educated about the factors, affecting their marital instability to be enabled to strengthen their marriage by considering the deteriorating factors in this regard.

Suggestions for future studies

Future studies are suggested to use a research design that can reflect the causative relationship of the factors discussed in this study. It is notable that the influence of these factors could be different in the subjects with different cultural backgrounds.

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