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Investigating the relationship between menopausal women's health anxiety and sexual performance and attitude towards menopause

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Abstract:

BACKGROUND: Menopause is a natural event in the life of women. Women's concerns during menopause and the role of health anxiety in the attitude and sexual performance of women during this period affect the quality of life. Therefore, the present study was conducted with the aim of determining the relationship between health anxiety and sexual performance and attitude towards menopause in postmenopausal women.

MATERIALS AND METHODS: The present study was a cross-sectional study of communication type that was conducted on 200 postmenopausal women with records in Sabzevar Comprehensive Health Centers in 2021–2022. In order to collect information, standard questionnaires of health anxiety, attitude towards menopause, and sexual performance were used. The collected data were analyzed by SPSS version 16 software and descriptive and analytical statistical tests (Spearman). A significance level of less than 0.05 was considered.

RESULT: The results of data analysis showed that health anxiety has a significant relationship with the dimensions of desire ($p = 0.045$ and $r = -0.142$) and sexual pain ($p < 0.001$ and $r = 0.274$). Also, there was a significant relationship between the attitude towards menopause with sexual performance ($p < 0.001$ and $r = 0.244$) and health anxiety with the attitude towards menopause ($p < 0.001$ and $r = 0.27$).

CONCLUSION: The results of this study showed that there is an inverse relationship between health anxiety and sexual desire and a significant direct relationship with sexual pain. Also, the attitude towards menopause has a significant direct relationship with sexual behavior and health anxiety. Therefore, it is suggested to pay attention to the mental health of postmenopausal women along with the physical aspect and to pay attention to educational programs to improve the care and health programs of these women.

Keywords:

Attitude towards menopause, health anxiety, menopausal women, sexual performance

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Introduction

Menopause is a natural event in the life of women which is of particular importance as one of the health issues in the spectrum of reproductive health. This period is a complex phase of women's life due to physical and mental changes.[1] The main consequences of menopause are mainly related to estrogen deficiency, which include: vasomotor symptoms, urogenital atrophy, osteoporosis, cardiovascular disease and cancer, decreased cognitive function, and sexual problems.[2-4] According to studies, fear of aging, fear of loss of libido, and vasomotor symptoms are negative emotions in menopausal women. On the other hand, anger, anxiety, and irritability are among the most common complaints.[5]

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Anxiety itself can cause health anxiety. Health anxiety is a widespread cognitive disorder that is formed as a false perception of symptoms and physical changes that are the result of a person's beliefs about illness or health.[6] Sexual dysfunction is higher in people who have diagnostic disorders, anxiety, mood, and other psychological factors.[7,8] Menopausal women experience a feeling of aging, a change in the mental image of their appearance, a feeling of the end of femininity, a feeling of helplessness and despair, depression and anxiety, all of which can negatively affect their sexual performance.[9] The attitude of women towards menopause plays an important role in creating or solving these problems. In this connection, many of these women see this era because of the end of the period of liberation because in addition to depriving their children, they no longer fear pregnancy and feel more comfortable than pre-menopause. Therefore, they may be more active than ever before.[10-13] But for others, this period is concerned about the signs of aging and the end of their attractions. If individuals are sexually transmitted during fertility or have been persistent sexual moods, then menopause may reduce their sexual abilities and hate sexuality for them. Therefore, women's attitude to menopause can be a factor in creating, doubled, or resolving sexual problems. In the case of these problems, the two periods of fertility and menopause are the manifestation of all individual successes and experiences.[14] In a study by Hakimi *et al*.,[5] it is said that women in menopause suffer from four major concerns of "disability," "aging," "rejection," and "health disorder." Also, given the biomedical approach to menopause, it is believed that menopause should be treated as a disease or a symptomatic process, which raises the level of concern of menopause and a negative attitude towards it. Also, according to studies, 9.5% of adults experience mild anxiety symptoms, while 3.4% of adults experience moderate anxiety, and 2.7% of adults experience severe anxiety symptoms. There is a positive relationship between anxiety and depression during menopause. That is, about 20 to 50% of people who experience severe anxiety during this period develop depression and, consequently, sexual dysfunction in these women.[7,8] The concerns of women during menopause and the effect of anxiety on the attitude and sexual performance of women during this period, on the one hand, and the effects of health anxiety on the quality of life, on the other hand, make the concept of health anxiety in this period more prominent. Despite the high prevalence of sexual dysfunction in postmenopausal women, many of them do not explain the reasons for their sexual problems due to some cultural and religious issues or do not seek medical solutions to solve them. Meanwhile, sexual dysfunction affects their physical, mental, and social health. Therefore, the present study was conducted with the aim of determining the relationship between health anxiety and sexual performance and attitude towards menopause in menopausal women who referred to comprehensive health service centers in Sabzevar city in 2021.

Materials and Method

Study design and setting

This research was a cross-sectional study that was conducted in order to investigate the relationship between health anxiety and sexual performance and attitude towards menopause on 200 eligible menopausal women who received services at comprehensive health service centers in Sabzevar city from 2020 to 2021. Sampling began after obtaining the code of ethics under the number IR.IUMS.REC.1399.982 from the Research Deputy of Ethics Committee of Iran University of Medical Sciences and presenting it to the officials of the health centers in question. For the purpose of sampling, written informed consent was obtained from people who met the criteria for entering the study.

Study participants and sampling

The research population included all menopausal women who visited the relevant centers to receive health care services. The samples were taken from comprehensive health centers according to the quota of each center. The inclusion criteria were: Being Iranian, having spontaneous and natural menopause, literate in reading and writing, living with a permanent spouse, the duration of menopause is more than one year, no addiction to drugs, alcohol and tobacco, not suffering from chronic and debilitating mental and physical diseases, not using psychoactive drugs and sex hormones, the absence of unfortunate and stressful events in the past 3 months, not using drugs affecting sexual activity such as antidepressants, GNRH analogues or danazol during the last 6 months.

Data collection tool and technique

In this research, a questionnaire was used to collect information, which included: Individual-pregnancy characteristics questionnaire, women's sexual performance index questionnaire, health anxiety questionnaire, and menopause attitude questionnaire.

The questionnaire of personal characteristics-pregnancy was made by the researcher. This questionnaire included two parts: Part A: Includes individual characteristics (person's age, spouse's age, person's education, spouse's education, person's occupation, spouse's occupation, economic status (family income level), housing status, height and weight), Part B: Including pregnancy characteristics (number of pregnancies, number of children, age of first menstruation (years), age of last menstruation (years),

duration of menopause (months), and complications related to menopause. In order to confirm the validity of this questionnaire, content validity was used in such a way that the questionnaire was given to three respected members of the academic staff and the suggested comments were applied.

The index questionnaire of women's sexual performance was designed by Rosen and his colleagues.[15] This questionnaire contains 19 questions that measure women's sexual performance in 6 areas (desire, psychological stimulation, moisture, orgasm, satisfaction, sexual pain). Evaluation is through the Likert scale. The marks considered for the questions in the field of desire are from one to five. The scores of sexual arousal, wetness, orgasm, and pain are from zero to five, and the scores of sexual satisfaction are from zero or one to five. A score of zero means that the person has not had sexual activity during the last four weeks. The scores of each field are obtained by summing the scores of the questions of each field and multiplying it by the factor number. Since the number of questions in the fields are not equal in the questionnaire, first, in order to balance the fields with each other, the scores obtained from the questions of each field are added together and then multiplied by the factor number. By adding the scores of six areas, the total score of the scale is obtained. The questions related to the domains are: Questions one and two = sexual desire, questions three to six = psychological stimulation, questions seven to ten = humidity, questions 11, 12, 13 = peak sexual pleasure, questions 14, 15, 16 = satisfaction. Questions 17, 18, 19 = sexual pain. Based on balancing the domains, the minimum score for each domain is: Sexual desire (1.2), sexual excitement (0), moisture (0), orgasm (0), pain (0), satisfaction (0.8). In the whole scale, the minimum score will be two. The maximum score for each area will be 6 and for the whole scale will be 36. In this way, scoring is such that a higher score indicates a better sexual function. The validity and reliability of this tool in Iran has been confirmed by Khadijah Mohamadi and colleagues.[16]

The Health Anxiety Inventory (SHAI) is a self-report scale with 18 items designed by Salkovskis (2002). In relation to each of the mentioned expressions, there are four options. The participant is asked to carefully read each of the four options presented for each of the statements and choose the statement that best describes his situation during the last six months. The expressions of this test are related to health-related concerns, attention to feelings or physical changes, and the dire consequences of having a disease. When scoring the proposed options, scores between 0 and 3 are given. This questionnaire measures two factors, the probability of contracting the disease and the negative consequences of contracting the disease. The first 14 questions are related to the probability of contracting the disease and are the main part of the questionnaire. The last 4 questions of the questionnaire are related to the factor of negative consequences of contracting the disease. The range of scores for this test is between 0 and 54. Higher scores indicate more health anxiety.[17] In Karimi *et al*.'s study (2015),[18] the validity and reliability of this questionnaire has been confirmed.

Neugarten attitude towards menopause questionnaire was designed by Neugarten *et al*. (1963).[19] It includes 34 questions with a 5-point Likert scale (1 = negative attitude, 5 = positive attitude). A higher score indicates a more positive attitude. The validity and reliability of this tool has been confirmed in Iran. Alirezaei *et al*. (2017)[20] confirmed the validity and reliability of this questionnaire.

Considering the conditions of the country due to the corona pandemic, sampling was done by phone and absent. In this way, after obtaining the letter of introduction, the researcher went to Sabzevar City Comprehensive Health Center and presented the permission to the officials of the center. Then the researcher explained the objectives of the research and the method of conducting the research to the officials and gained the confidence of the officials of the center for sampling. Then, with the help of the employees working in the center, contact numbers of menopausal people were extracted through Sib system. Then, the numbers were called. At first, the researcher explained himself and the goals and methods of the research for postmenopausal women. Then, after checking the inclusion criteria, he asked people to participate in the present study if they wish. Finally, after obtaining oral and written consent, he received the right time from the people to call in order to complete the questionnaires. Sampling continued until the sample volume was completed. The collected data were analyzed by SPSS version 16 software and descriptive and analytical statistical tests (Spearman). A significance level of less than 0.05 was considered.

Ethical consideration

The code of ethics under the number IR.IUMS.REC.1399.982 was obtained from the Research Vice-President of the Ethics Committee of Iran University of Medical Sciences. Informed consent was obtained from all participants. Research objectives and working methods were explained to the study participants. The participants were assured that their information would remain confidential.

Results

The results of the data analysis on the demographic characteristics showed that most of the research units

have primary education (52.5%), housewives (62%), have an unfavorable income level (44%), and have their own home (91%). The subjects of the study had an average age of 59.5 ± 4.41 years and an average body mass index of 28.7 ± 4.41 kg/m^2. Most of the research units were pregnant four or more times (77.5%) and had 4 or more children (48%). The most reported symptom of menopause was hot flashes (77%). The average age of first menstruation was 12.26 ± 1.52 years, the average age of menopause was 49. ±3.91 years. 126.9 ± 63.93 months had passed since the cessation of menstruation. Most of the research units had spouses with primary education level (44.5%), retired (45.5%). The spouses of the research units had an average age of 64.73 ± 7.38 years.

The results of data analysis showed that the average health anxiety score is 18.97 ± 64.9. In addition, the following scores of the health anxiety scales were: Contracting the disease 3.75 ± 3.4, consequences of the disease 7.24 ± 2.84, general health concerns 7.98 ± 4.51. Also, the results showed that the average overall score of sexual function was 18.04 ± 5.86. Under the scales of sexual performance, the highest average scores were related to satisfaction (3.78 ± 1.28), and the lowest average scores were related to sexual pain (2.59 ± 1.48). In addition, the results showed that the average score of the attitude towards menopause was 118.9 ± 6.71 [Table 1].

Table 1: Determining the mean and standard deviation of health anxiety, sexual performance, and attitude towards menopause in menopausal women under research

Variable	Minimum	Maximum	Mean±SD
health anxiety			
getting a disease	0	15	3/75±3/4
consequences of the disease	0	14	7/24±2/84
general health concerns	0	20	7/98±4/51
general score of health anxiety	1	45	18/97±9/64
sexual function			
desire	1/2	4/8	2/99±1/09
mental stimulation	0	5/4	3/14±1/5
humidity	0	6	2/73±1/07
the peak of sexual pleasure	0	6	2/79±1/11
satisfaction	0/8	6	3/78±1/28
sexual pain	0	6	2/59±1/48
overall sexual performance score	2/8	28/4	18/04±5/86
attitude to menopause	98	143	118/9±6/71

The results of data analysis showed that the overall score of health anxiety had a significant relationship with the dimensions of desire ($p = 0.045$ and r = −0.142) and sexual pain ($p < 0.001$ and r = 0.274). Also, the results showed that there is a significant relationship between the dimension of health concern with desire ($p = -0.2$ and $p = 0.0$), satisfaction with sexual pain, the dimension of disease consequences with pain, and the dimension of disease with pain. In addition, the results showed that there is a significant relationship between the attitude towards menopause with all dimensions of health anxiety and the overall score of health anxiety [Table 2].

The results of the data analysis showed that there is a significant relationship between the attitude towards menopause with the overall score of sexual performance and all dimensions of sexual performance except sexual pain [Table 3].

Discussion

The results of data analysis showed that the general health concerns dimension of health anxiety has a significant relationship with sexual performance under the sub-scales of desire, satisfaction, and pain, which was most related to sexual pain. In other words, with the increase of health anxiety, desire, and satisfaction decrease, and with the increase of health anxiety, sexual pain increases. In justifying the results, it can be said that people who experience higher health anxiety tend to have less sex, and if they do have sex, they experience higher sexual pain, which itself can cause a decrease in relationship satisfaction. Then the consequences of the disease had a significant relationship only with sexual pain. The illness dimension of health anxiety also had a significant relationship only with sexual pain subscale of sexual performance. In general, health anxiety had a significant relationship with sexual pain dimension. In this regard, the study of Safaei *et al*. (2018)[21] showed that there is a relationship between sexual performance and depression and anxiety in postmenopausal women. Also, the study of Yazdanpanahi *et al*. (2018)[22] showed that there is a relationship between mental health status and sexual performance in postmenopausal women. In addition, the study of Kalmbach *et al*. (2019)[23] showed that stress regulation disorders may play a vital role in sexual problems confirmed by postmenopausal insomnia, especially in the case of low desire and vaginal pain. Saberi *et al*.'s study (2017)[24] also showed that sexual performance is correlated with mental state (depression and anxiety) and social support. Marván *et al*. (2018)[25] reported that among sexually active women (92% premenopausal and 70% postmenopausal), a positive attitude was associated with better sexual performance, while a negative attitude was associated with worse sexual performance. Anxiety and negative emotions lead to sexual disorders and there is a relationship between sexual dysfunction and mental health components in postmenopausal women.[26-28] In addition, Cabral *et al*.[26] reported in a study that depression and anxiety have a negative effect on sexual

Table 2: Correlation coefficient of sexual function and attitude towards menopause with health anxiety of menopausal women under research

Sexual function	Health anxiety			
	General score of health anxiety	Getting a disease	Consequences of the disease	General health concerns
desire	142/0− = *r*, 045/0=*P*	12/0− = *r*, 091/0=*P*	03/0− = *r*, 672/0=*P*	2/0− = *r*, 006/0=*P*
mental stimulation	08/0− = *r*, 264/0=*P*	067/0− = *r*, 346/0=*P*	002/0− = *r*, 979/0=*P*	12/0=*r*, 093/0=*P*
humidity	11/0=*r*, 138/0=*P*	08/0=*r*, 263/0=*P*	11/0=*r*, 138/0=*P*	11/0=*r*, 134/0=*P*
the peak of sexual pleasure	078/0=*r*, 275/0=*P*	09/0=*r*, 225/0=*P*	073/0=*r*, 307/0=*P*	054/0=*r*, 451/0=*P*
satisfaction	136/0− = *r*, 055/0=*P*	05/0− = *r*, 41/0=*P*	06/0− = *r*, 41/0=*P*	22/0− = *r*, 003/0=*P*
sexual pain	274/0=*r*, 001/0<*P*	237/0=*r*, 001/0=*P*	173/0=*r*, 015/0=*P*	3/0=*r*, 001/0=*P*
overall sexual performance score	028/0=*r*, 697/0=*P*	04/0− = *r*, 579/0=*P*	06/0=*r*, 41/0=*P*	01/0− = *r*, 91/0=*P*
attitude to menopause	27/0=*r*, 001/0<*P*	255/0=*r*, 001/0=*P*	19/0=*r*, 007/0=*P*	26/0=*r*, 001/0<*P*

Table 3: Correlation coefficient of attitude towards menopause and sexual performance of postmenopausal women in the study

Sexual function	Desire	Mental stimulation	Humidity	The peak of sexual pleasure	Satisfaction	Sexual pain	Total sexual performance
Attitude to menopause	26/0=*r*, 001/0<*P*	24/0=*r*, 001/0=*P*	17/0=*r*, 018/0=*P*	239/0=*r*, 001/0=*P*	2/0=*r*, 005/0=*P*	064/0=*r*, 368/0=*P*	244/0=*r*, 001/0<*P*

performance. Also, in the research of Chivers *et al*.[28] anxiety is mentioned as one of the important risk factors related to sexual dysfunction. Among the most important factors of effective interventions on sexual dysfunction during menopause are negative emotions and anxiety. In a defective cycle, the presence of sexual dysfunction also increases the level of anxiety in postmenopausal women.[27]

The results showed that all dimensions of sexual performance, except sexual pain, have a significant relationship with the attitude towards menopause. The highest correlation was between sexual performance and attitude towards menopause. In other words, by increasing the attitude towards menopause and increasing people's awareness of menopause and its signs and symptoms, sexual performance increases. Beigi *et al*.'s research (2008)[29] showed that a positive attitude was associated with positive sexual performance and a negative attitude towards menopause was associated with negative sexual performance. Zahedinia (2019)[30] showed that there is a positive and significant relationship between sexual knowledge and attitude and sexual intimacy and satisfaction. The results of Naderi *et al*.'s study (2018)[31] showed that there is a significant negative relationship between sexual knowledge and attitude, components of love and marital satisfaction with spousal abuse in both men and women. The study of Zabihi Rig Cheshme *et al*. (2012)[32] showed that there is a significant positive correlation between marital satisfaction and sexual attitude in both fertile and infertile women. The study of Gozuyesil *et al*. (2021)[33] showed that two-thirds of the women participating in the study had a negative attitude towards menopause, and the increase in women's negative attitude had a negative effect on their sexual performance. It is recommended to design health promotion programs and counseling services to promote a positive attitude towards menopause in women during the peak period. But the results of the study by Alirezaei *et al*.[34] showed that there is no relationship between sexual performance and attitude towards menopause. Also, Bello and Daramulla, in a study, they conducted in 2016, similar to the present study, concluded that despite the negative attitude of menopausal women towards menopause, their sexual performance is not affected by this issue.[35] In explaining the observed difference between the results in the present research and the mentioned studies, we can point to the difference in sample size and demographic differences between different studies. In fact, the presence of sexual dysfunction depends on many factors, including symptoms and complications of menopause.[36-39] In addition, the results of the study showed that the attitude towards menopause has a significant relationship with health anxiety and its subscales. In other words, with the increase in health anxiety, people's attitude towards menopause has increased and they seek to receive information about menopause and its related symptoms and problems. The findings of this study are based on the concept of self-regulation. These findings show that if a more positive attitude towards menopause is created in women, it will also be effective in improving their symptoms and complications. The results of the Erbil study (2018) showed that women who have an optimistic attitude towards menopause have a more positive body image and their level of depression is lower.[40] The study

of Shariat Moghani *et al*. (2017)[41] showed that with the increase in depression, anxiety and stress score, the score of women's experiences in menopause increases. The study of Bahri *et al*. (2013)[42] showed that there is no relationship between the severity of menopausal symptoms and depression and anxiety of menopausal women. Some other researchers have also reported that high levels of stress and anxiety potentially exacerbate menopausal symptoms.[43-45]

Limitations and recommendation

The present study was a descriptive study and therefore the results can only show the relationship between the variables and not cause and effect relationships. Therefore, it is suggested that analytical studies to show the effect of health anxiety on sexual performance and attitude towards menopause of menopausal women should be considered. Also, this study was conducted during the corona pandemic, that's why the sampling method was by phone, which caused the lack of close and face-to-face communication. For this purpose, it is recommended to conduct other studies in person.

Conclusion

Data analysis showed that general health concerns of health anxiety have a significant relationship with sexual performance in the sub-scales of desire, satisfaction, and pain, which was most related to sexual pain. All aspects of sexual performance, except sexual pain, have a significant relationship with the attitude towards menopause. The highest correlation was between sexual performance and attitude towards menopause. Also, the results showed that the attitude towards menopause has a significant relationship with health anxiety and its subscales. For this purpose, it is recommended that educational programs to improve sexual function and attitude towards menopause of menopausal women should be taken into consideration by officials and caregivers.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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