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Original Article

Investigating the frequency and intensity of menopausal symptoms and contributing factors in postmenopausal women in a Middle Eastern Nation

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Abstract

Introduction: Due to the hormonal changes that occur during the menopause period, postmenopausal women (PMW) experience symptoms that can affect their quality of life. This study aimed to investigate the prevalence of menopausal symptoms and its related factors in Iranian PMW.

Methods: In this cross-sectional study, a total number of 300 participants from Neyshabur health centers were recruited, using stratified random sampling in 2022. Data were collected using the demographic characteristics and Menopause Rating Scales. Descriptive statistics, Pearson correlation test, and stepwise regression analysis were employed for data analysis using SPSS software version 22.

Results: The mean (standard deviation) age of menopause was 49.4 (3.3). The most common menopausal symptoms were muscle or joint pain 239 (79.7%), hot flashes/sweating 232(77.3%), and anxiety 219 (73%), and sexual problems 214 (71.3%). Independent predictors of menopausal symptoms were: the spouse's education level for physiological and total menopausal symptoms; chronic diseases for somatic total menopausal symptoms; age, economic status, and the number of children for uranological menopausal symptoms; and family structure for physiological menopausal symptoms ($P<0.05$).

Conclusion: Women education about menopause, including its associated symptoms and the underlying factors influencing symptomatology, is essential for enhancing their quality of life both during and after this transitional phase. Additionally, providing them with information on effective strategies and interventions for mitigating and managing menopausal symptoms can significantly contribute to improving women's overall well-being during this life stage.

Keywords: Menopausal symptoms, Menopause, Women

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Introduction

Menopause is a common phenomenon in most women between the ages of 45-55,[1] but its occurrence can vary between the ages of 40 and 60. This event is caused by stopping the secretion of ovarian hormones.[2] The most important hormonal changes may include decreased estrogen, estradiol, and progesterone, which stops folliculogenesis and ovulation [3] Hormonal changes might create symptoms in menopausal women; including night sweats and hot flashes. Menopausal women may also complain of symptoms such as vaginal atrophy and bladder irritability, muscle pain and joint pain, headache and dizziness. Depression, anxiety, impaired sexual function, memory impairment, and weight gain are other symptoms of menopause.[1]

These complications and symptoms cause a wide range of physical, psychological, social, mood, and family disorders [4] and reduce the quality of life of women.[5] A study conducted in Iranian postmenopausal women (PMW) found that they have an unfavorable quality of life.[6] Another research study among menopausal Egyptian women showed menopause symptoms had affected their quality of life.[7] Also a study among Jordanian women found a significant association between symptom severity with work performance, career decisions, and attendance at work.[8]

The severity of menopausal symptoms (MSs) is related to many variables, including biological, psychological, and social factors.[9-11] In a study on menopausal symptoms in Asian women, Vietnamese women reported the highest overall prevalence of menopausal symptoms, while Indonesian women had the lowest rates of specific symptoms.[12] In a study conducted in Iran, it was found a negative relationship between MSs and age of marriage,

age of first pregnancy, and educational status, and a positive relationship between the number of pregnancies and body mass index with the severity of MSs.[13] In a study conducted on Korean PMW, the severity of MSs was related to demographic characteristics, lifestyle, premenstrual disorder, attitude towards menopause, relationship with life partner, and internal psychological state.[14] In a study among Arabian Qatari women, significant differences were observed between the menopausal stages concerning ethnicity, education level, occupation, housing conditions, and consanguinity.[15]

Other research has shown the relationship between the severity of MSs and physical activity, smoking and hormone pills, low income, number of children, history of abortion, use of supplements, and history of chronic diseases.[16,17]

The prevalence of MSs may be different between different nations and cultures, and also the prevalence and severity of these symptoms can be affected by various factors, such as the habits and lifestyles of women in different societies. Determining the severity of MSs as well as its related factors can provide useful information for planning to improve the health of PMW and women about to undergo menopause and women on the verge of menopause. Therefore, this study was conducted to investigate frequency and intensity of menopausal symptoms and related factors in Iranian PMW.

Methods and Materials

Study design and participants

This cross-sectional study was conducted on 300 PMW under Neyshabur health care centers, in 2022. Data were collected by face-to-face interview. Eligibility criteria included being 40 -65 years of age, having menopause age after 45 years, having no menstruation in the last year, having no history of abnormal menopause (chemotherapy, hysterectomy surgery …), having no history of hormone therapy in the last six months and the exclusion criteria encompassed individuals possessing physical or mental impairments, encountering adverse circumstances and occurrences within the preceding half-year, and abstaining from the utilization of tobacco and alcoholic substances.

The sample size was estimated sample size based on the following parameters: $\alpha = 0.05$, B = 90%, R = - 0.404.[18] Considering about 20% attrition, the sample size was increased to 300.

The participants were selected using the stratified sampling method, taking into consideration the sample size. The researcher commenced by determining the overall number of women availing health care services. Subsequently, the healthcare centers with a greater female population were allocated a larger sample size, corresponding to their respective sizes.

Informed consent was obtained verbally from all study PMWs before completing the survey instrument.

Measurement

Sociodemographic variables

This includes items on age, menopausal age, marital status, occupation, educational status, spouse's educational status, and family income status, number of children, family structure, and history of chronic disease.

Menopause rating scale (MRS)

Heinemann et al. (2003) developed a scale to assess the MSs.[19] Moreover, the Persian adaptation of the MRS, which underwent validation by Allahverdipour et al, was employed.[20] Eleven MSs were measured using a five-point Likert scale (1 = not at All, 2 = minor, 3 = mediate, 4 = severe, and 4 = very severe). The MRS comprises three subscales, namely somatic symptoms (4 items), psychological symptoms (4 items), and urogenital symptoms (3 items). The instrument's total score varies between 11 and 55, with individual domains possessing their unique scores. Higher scores on the scale correspond to more severe MSs.

Statistical analysis

We performed all the analyses using SPSS 22 (SPSS Inc, Chicago, IL, USA) and presented the data by mean (SD) and frequency (percent) for quantitative and qualitative variables, respectively. Multivariate linear regression was used to control confounding variables and assess the impact of each independent variable on dependent variables (MSs). P-values less than 0.05 are considered significant.

Results

The mean age of participants was 56.4 (4.1), and their mean age of menopause was 49.4 (3.3). Most of the participants were 56 years old and older and had experienced menopause between the ages of 45 and 50. Also, most of them were housewives (88%), married (75%), illiterate 56(18.7), and had at least one chronic disease (65.7%). Complete information on demographic variables is shown in Table 1.

The mean total score of MSs was 24.0 (6.9), and the mean of its subscales included somatic, psychological, and urogenital symptoms were 9.5 (3.0), 8.7 (3.3), and 5.8 (2.3), respectively.

The most common MSs experienced by PMW from low to moderate severity were muscle or joint pain 239 (79.7), hot flashes/sweating 232 (77.3%), and anxiety 219 (73%) and sexual problems 214(71.3%), respectively. The most common severe MSs experienced severe to very severe were included muscle or joint pain 101 (33.6%), and sexual problems 87 (29%) (Table 2).

Based on the results, there was a significant relationship between urogenital symptoms and age ($P < 0.05$), and also between the physiology and total MSs scores with the spouse's education level ($P < 0.05$). In addition, there was

Table 1. Demographic and underlying characteristics of the postmenopausal women (N = 300)

Variables	Frequency (%)
Age	
45-50	39 (13)
51-55	73 (24.3)
56 +	188 (62.7)
Employment status	
Housewife	264 (88)
Employed	36 (12)
Educational status	
Illiterate	56 (18.7)
Elementary school	15 (50.2)
Guidance school	44 (14.7)
Diploma and university	49 (16.4)
Marital status	
Divorced/widow/Single	75 (25)
Married	225 (75)
Number of children	
0	9 (3)
1	14 (4.7)
2	37 (12.3)
3 +	240 (80)
Menopause age	
45-50	217 (72.3)
50-55	71 (23.7)
56 +	12 (4)
Family structure	
Living alone	45 (15)
Living with husband	103 (34.3)
Living with husband and children	122 (40.7)
Living with children	30 (10)
Economic status	
Weak	53 (17.7)
Moderate	202 (67.3)
Good	45 (15)
Spouse's educational status	
Illiterate	51 (17)
Elementary school	113 (37.7)
Guidance school	43 (14.3)
Diploma and university	93 (31)
Having history of chronic diseases	
Yes	203 (65.7)
No	97 (32.3)

a significant relationship between somatic, psychological and total MSs scores with having chronic diseases ($P < 0.05$) (Table 3).

Based on the results of multivariate regression analyses, chronic diseases were found to be independent predictors for the physiology and total MSs scores. Age, number of children, and economic status were independent predictors for the urology symptoms score. The spouse's education level was, a significantly, independent predictors for the physiology and total MSs scores. Moreover, family structure emerged as a significant independent predictor for the physiology symptoms score (Table 4).

Discussion

This study aimed to investigate frequency and intensity of menopausal symptoms and related factors among Iranian PMW. The mean age of menopause in this study was 49.4 ± 3.26 years. Comparable findings were reported in previous meta-analyses of studies on Iranian women, which indicated mean ages of menopause ranging from 48.26 to 48.6 years.[21,22] In other studies conducted in Middle Eastern countries such as Saudi Arabia,[23] Qatar,[15] Jordanian[8] and Lebanon,[24] the age of menopause was reported as 48.3 ± 3, 49.9 ± 2.7, 47.9 ± 4.5 and 49.53 ± 5.74 respectively. The results revealed that somatic symptoms were the most prevalent MSs, consistent with prior reports among Iranian women[25-27] and women from other in Middle Eastern countries.[8,28,29] Additionally, the study found joint and muscular discomfort to be the most common MS among women, followed by hot flashes, night sweats, anxiety, and sexual problems. These findings align with previous research conducted among Iranian women, where joint and muscle issues were consistently identified as the predominant menopausal symptom.[25,27,30] Ceylan and Özerdoğan reported fatigue and exhaustion, pain in muscles and joints, and back pain as the most common symptoms of menopause among Turkish women.[31] Lebanese women reported feeling of tiredness or exhaustion, pain in muscles and joints, anxiety and nervousness and lower back pain as the main menopause symptoms.[24] Smail et al determined that the most common symptom among the Emirati women was 'aching in the muscles and joints'.[32]

In a study aimed to investigate and compare menopause symptoms in Turkish and German women, Turkish women exhibited higher menopausal symptoms including the somatic, psychological and urogenital symptoms compared to German women.[29] In another study Qatar it found that climacteric symptoms in Arab women were less severe compared to those in Western women.[15]

Iranian women do not have the enough physical activity,[33,34] and also they do not have a proper pattern of nutrition, which can be the reason for joint and muscle pain during menopause.[34]

The differences in menopausal symptoms between the groups may attribute to varying socio-cultural and economical characteristics, genetic environmental, and parity influences. Therefore, in the design of interventions to improve the quality of life of menopausal women

Table 2. Prevalence of menopausal symptoms (N = 300)

Menopausal symptoms (subscale)	None No. (%)	Mild No. (%)	Moderate No. (%)	Severe No. (%)	Extremely severe No. (%)
Somatic					
Hot flashes, sweating	68(22.7)	72(46.7)	67(22.3)	61(20.3)	32(10.7)
Heart discomfort	157(52.3)	81(27)	34(11.3)	26(8.7)	2(0.7)
Sleep problems	109(36.3)	78(26)	64(21.3)	35(11.7)	14(4.7)
Joint and muscular discomfort	61(20.3)	59(19.7)	79(26.3)	76(25.3)	25(8.3)
Psychological					
Depressive mood	127(42.3)	96(32)	46(15.3)	22(7.3)	9(3)
Irritability	92(30.7)	97(32.3)	62(20.7)	38(12.7)	11(3.7)
Anxiety	81(27)	90(30)	68(22.7)	42(14)	19(6.3)
Physical and mental exhaustion	105(35)	116(38.7)	44(14.7)	29(9.7)	6(2)
Urogenital					
Sexual problems	86(28.7)	61(20.3)	66(22)	44(14.7)	43(14.3)
Bladder problems	209(69.7)	54(18)	21(7)	12(4)	4(1.3)
Dryness of vagina	188(62.7)	57(19)	32(10.7)	18(6)	5(1.7)

and adjust menopausal symptoms, the lifestyle and socio-economic factors of the communities should be considered. By institutionalizing health-promoting behaviors such as healthy eating and physical activity during childhood and adolescence, as well as encouraging and educating middle-aged women in a healthy lifestyle, MSs can be moderated.

The results of this study showed that the age of menopause has no statical significant relationship with the severity of symptoms, which is similar to the results of the study by Sharma et al[6,35] But in the study of Sharma et al., the reduction in age at which menopause occurs, as well as the mean duration since menopause, were associated with the prevalence of vasomotor symptoms.[36] The conflicting results regarding the relationship between menopause age and MSs explain the need for more studies in this regard.

In the present study, there was a significant direct relationship between age and urogenital symptoms, so that people aged 56 and older had the highest average score of urogenital symptoms. The results of various studies showed that increasing age increases symptoms' intensity.[8,37] With increasing age, the amount of estrogen hormone secretion decreases and this will cause the occurrence of severe forms of MSs.[38] In a study conducted by Zhang et al, it was found that the severity of MSs increases with age, but after 60 years of age, it decreases except for urogenital symptoms.[39]

Menopausal symptoms can impact women's society and family roles. Understanding the prevalence and physiology of MSs can help predict future problems in PMW.

There was a significant negative relationship between the mean score of the total MSs and the psychological symptoms with the spouse's educational level of the participants in the study. As the spouse's educational level increased, the MSs decreased. In a study conducted among Paraguayan women, it was found that the partner's education level was inversely correlated with MSs.[40] The results of another study showed that marital satisfaction and mental health status increase with the spouse's education level.[41]

This finding indicates how much the spouse's education level affects the psyche and mood of PMW. Therefore, it is necessary to hold training classes for the spouses of PMW so that they become familiar with the psychological changes of their wives during menopause.

There was a significant relationship between women suffering from chronic diseases, and the mean score of total MSs, somatic and psychological symptoms, and the symptoms was more severe in affected women. Similar to the results of the present study, various studies have reported the relationship between chronic diseases and the severity of MSs.[42-44]

As the results of research have shown, the vasomotor symptoms of menopause (hot flashes and night sweats), which are common among women at the age of menopause, are related to increased blood pressure and increased risk of cardiovascular diseases.[45] Another study has shown a direct relationship between the severity of MSs and the prevalence of cardiovascular risk factors and osteoporosis.[46] Also, a history of heart disease and rheumatoid arthritis have been associated with increased severity of MSs.[16]

There is a possibility that women with chronic diseases perceive MSs more severely due to the pain and suffering caused by chronic diseases. So, chronic diseases aggravate the MSs. MSs may be associated with the onset of other disorders in PMW, emphasizing the importance of early detection and intervention. Also, women with chronic diseases need more attention regarding the

Table 3. Correlation between total menopausal symptoms and its domains with demographic and underlying characteristics among PMW (N = 300)

Variables	Somatic Mean ± SD	Physiology Mean ± SD	Urology Mean ± SD	Total Mean ± SD
Age				
45-50	9.05 ± 2.95	8.15 ± 3.32	5.48 ± 2.41	22.69 ± 6.86
51-55	9.53 ± 3	9.12 ± 3.6	5.3 ± 2.02	23.95 ± 6.83
56 +	9.65 ± 3.13	8.65 ± 3.21	6.05 ± 2.46	24.37 ± 6.91
P value	0.54	0.325	0.047	0.38
Employment status				
Housewife	9.57 ± 3.18	8.74 ± 3.39	5.83 ± 2.39	24.15 ± 7.07
Employed	6.23 ± 2.22	8.44 ± 2.86	5.52 ± 2.23	23.3 ± 5.38
P value	0.659	0.615	0.465	0.488
Educational status				
Illiterate	10.16 ± 3.13	9.37 ± 2.95	6.08 ± 2.39	25.62 ± 6.73
Elementary school	9.5 ± 3.12	8.92 ± 3.57	5.8 ± 2.47	24.33 ± 7.16
Guidance school	9.06 ± 3.26	7.88 ± 3.05	5.2 ± 1.88	22.2 ± 6.23
Diploma and university	9.47 ± 2.91	8.18 ± 3.02	5.78 ± 2.37	23.44 ± 6.64
P value	0.419	0.079	0.467	0.091
Marital status				
Divorced/widow/Single	9.49 ± 2.67	8.65 ± 2.85	5.82 ± 2.29	23.97 ± 5.72
Married	9.5 ± 3.21	8.72 ± 3.47	5.79 ± 2.41	24.08 ± 7.24
P value	0.926	0.698	0.685	0.857
Number of children				
0	8.85 ± 2.17	8.85 ± 3.32	7.21 ± 3.46	24.92 ± 7.42
1	9.64 ± 2.67	9.27 ± 4.02	5.67 ± 2.31	24.59 ± 6.97
2	9.59 ± 3.18	8.69 ± 3.22	5.75 ± 2.27	24.03 ± 6.82
3 +	9.54 ± 3.02	8.6 ± 3.32	5.8 ± 2.37	24.05 ± 6.88
P value	0.752	0.183	0.147	0.504
Menopause age				
45-50	9.4 ± 3.09	8.62 ± 3.29	5.73 ± 2.32	23.76 ± 6.76
50-55	9.83 ± 3.09	9.01 ± 3.5	5.92 ± 2.5	24.77 ± 7.41
56 +	10.5 ± 2.71	8.41 ± 2.64	6.16 ± 2.5	25.03 ± 5.9
P value	0.328	0.66	0.725	0.488
Family structure				
Living alone	9.28 ± 3.08	8.6 ± 3.05	5.66 ± 2.5	23.55 ± 6.94
Living with husband	9.91 ± 3.23	9.28 ± 3.88	5.79 ± 2.6	24.99 ± 7.74
Living with husband and children	9.21 ± 3.03	8.13 ± 2.87	5.71 ± 2.15	23.05 ± 6.24
Living with children	10 ± 2.64	9.23 ± 3.1	6.36 ± 2.29	25.63 ± 5.66
P value	0.269	0.056	0.573	0.099
Economic status				
Weak	9.84 ± 3.39	9.45 ± 3.58	6.32 ± 2.2	25.6 ± 7.08
Moderate	9.59 ± 3.09	8.67 ± 3.43	5.79 ± 2.5	24.05 ± 7.07
Good	8.97 ± 2.5	7.97 ± 2.7	5.22 ± 1.85	22.17 ± 5.24
P value	0.269	0.056	0.573	0.099
Spouse's Educational Status				
Illiterate	10 ± 3.23	8.8 ± 3.2	6.03 ± 2.79	24.8 ± 7.04
Elementary school	9.76 ± 3.33	9.35 ± 3.5	5.88 ± 2.3	25 ± 7.22
Guidance school	9.72 ± 3.01	8.69 ± 3.6	6.23 ± 2.42	24.6 ± 7.36
Diploma and university	9.4 ± 2.6	8.37 ± 2.97	5.52 ± 2.34	23.31 ± 5.81
P value	0.051	0.006	0.21	0.005
Having history chronic diseases				
Yes	9.97 ± 2.92	8.97 ± 3.36	5.9 ± 2.4	24.8 ± 7
No	8.64 ± 3.22	8.15 ± 3.19	5.56 ± 2.2	22.37 ± 6.34
P value	0.001	0.043	0.242	0.003

Table 4. Linear multivariate regression results for factors associated with total MRS score (N = 300)

Variables	Somatic symptoms			Physiology symptoms			Urology symptoms			Total MSs		
	B	*t*	*P* value	B	*t*	*P* value	B	*t*	*P* value	B	*t*	*P* value
Age												
45-50	0.023	0.036	0.971	0.206	0.312	0.35	-0.876	-1.83	0.068	-0.645	-0.47	0.639
51-55	0.159	0.353	0.724	0.754	1.58	0.412	-0.897	-2.6	0.01	0.043	0.044	0.965
56+												
Employment status												
Housewife	0.123	0.174	0.662	0.791	1.061	0.29	-0.268	-0.497	0.618	1.086	0.645	0.852
Employed												
Educational status												
Illiterate	-0.029	-0.034	0.973	0.854	0.925	0.356	-0.384	-0.731	0.466	0.4	2.11	0.85
Elementary school	-0.455	-00.663	0.508	0.417	0.728	0.582	-0.422	-0.632	0.528	0.42	0.28	0.87
Guidance school	-0.591	-0.795	0.428	-0.228	-0.289	0.773	-0.847	-1.48	0.138	1.66	1.09	0.3
Diploma and university												
Marital status												
Divorced/widow/single	-1.37	-1.03	0.3	-2.199	-1.57	0.118	-1.712	-1.69	0.091	-5.24	-1.84	0.064
Married												
Number of children												
0	-0.665	-0.556	0.573	-2.26	-1.782	0.076	0.159	0.173	0.862	-2.69	-1.024	0.307
1	-0.525	-0.597	0.551	0.597	0.673	0.524	1.76	2.62	0.009	2.017	1.035	0.302
2	0.29	0.505	0.614	0.779	1.27	0.202	0.15	0.34	0.73	1.315	1.037	0.302
3+												
Menopause age												
45-50	-1.411	-1.5	0.33	0.003	0.003	0.998	-0.163	-0.227	0.82	-1.48	-0.72	0.472
50-55	-1.191	-1.218	0.224	0.323	0.312	0.755	-0.158	-0.21	0.833	-0.963	-0.447	0.665
56+												
Family structure												
Living alone	0.931	0.704	0.482	2.56	1.827	0.069				1.3	1.34	0.181
Living with husband	0.458	1.035	0.302	1.084	2.3	0.022				4.63	1.59	0.113
Living with husband and children	1.389	0.965	0.335	2.74	1.796	0.074				6.04	1.9	0.058
Living with children												
Economic Status												
Weak	0.452	0.636	0.525	0.668	0.886	0.736	1.1	2.028	0.044	2.13	1.35	0.176
Moderate	0.466	0.557	0.837	0.245	0.415	0.678	0.492	1.15	0.25	1.12	0.911	0.363
Good												
Spouse's educational status												
Illiterate	0.99	1.38	0.168	0.638	0.84	0.402	0.29	0.728	0.467	1.93	1.229	0.22
Elementary school	0.858	1.418	0.58	1.26	2.29	0.023	0.316	0.576	0.565	2.08	1.55	0.058
Guidance school	0.795	1.53	0.127	0.68	1.06	0.29	0.632	1.36	0.174	2.32	2.035	0.012
Diploma and university												
Having history of chronic diseases												
Yes	1.235	3.15	0.002	0.639	1.53	0.127	0.3	0.998	0.33	2.182	2.52	0.012
No												
R^2		0.016			0.052			0.03			0.047	

MSs: menopausal symptoms

management of MSs.

Women who lived only with their spouses had higher psychological symptom scores than those who lived with both spouses and children, and those who had one child had more urogenital symptoms than those who had three or more children.

In the study of Lee et al, it was found that the increase in severity of MSs was related to the absence of a spouse so women who did not have a partner (i.e., separated, divorced, widowed, or single) had higher MSs scores.[14] The results of a study on Chinese women showed that women with nulliparity or multiparity had higher risks of moderate and severe menopausal syndrome. One or two births showed potential beneficial effects on menopausal syndrome, particularly in urogenital symptoms.[42] Results of another study conducted in Cambodia showed that the number of children more than 4 is related to the increase in the severity of symptoms.[16]

Understanding the correlation between coherent family structure, the presence of children in the family, parity and the severity of MSs enables tailored interventions for this demographic. Recognizing the potential positive impact of coherent family structure and childbirth on MSs, particularly in alleviating psychological and urogenital symptoms, provides healthcare providers with insights for advising family planning options for women nearing menopause.

People with poor economic status had more urogenital symptoms compared to people with good economic status. Other studies have also shown a link between poor economic status and MSs.[30,47,48]

Economic status and financial protection can enhance access to healthcare services and health outcomes. Training on menopause and treatment options for health workers is promoted to enhance care quality. Emphasis is placed on a life course approach to women's health, ensuring access to appropriate information and services for healthy aging and quality of life during and after menopause.

The present study encountered several limitations. Firstly, its cross-sectional design precludes the establishment of causation, thereby warranting caution in generalizing the findings. Additionally, longitudinal research efforts tracking the progression of menopausal symptoms in women are essential. Furthermore, reliance solely on self-reported data in this study introduces the possibility of socially desirable response bias.

Conclusion

The prevailing MSs included muscle or joint pain, hot flashes/sweating, and anxiety and sexual problems. Determinants of MSs were the spouse's education level for physiological and total MSs; chronic diseases for somatic total MSs; and factors like age, economic status, and number of children for uranological symptoms. Family structure was also a predictor for physiological symptoms. Women education about menopause, including its associated symptoms and the underlying factors influencing symptomatology, is essential for enhancing their quality of life both during and after this transitional phase. Additionally, providing them with information on effective strategies and interventions for mitigating and managing menopausal symptoms can significantly contribute to improving women's overall well-being during this life stage.

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Writing–review & editing: Shayesteh Jahanfar, Shayesteh Shirzadi.

Competing Interests

The authors declared no potential competing interests with respect to the research, authorship, and/or publication of this article.

Consent for publication

All respondents permitted publication, provided anonymity was ensured.

Ethical Approval

Ethical approval for the study protocol was provided by the Ethics Committee of Neyshabur University of Medical Sciences (ethics code: IR.NUMS.REC.1401.005). All the participants voluntarily signed the informed consent form to participate in the study before the interviews. Informed consent was obtained from all participants in the study. The study was performed in line with the principles of the Helsinki Declaration.

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