



# The Relationship Between Menopausal Attitudes and Menopausal Symptoms in Women Aged 40-55

## 40-55 Yaş Arası Kadınlarda Menopoz Tutumları İle Menopoz Semptomları Arasındaki İlişki

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### Abstract

**Aim:** In this study, we aimed to reveal the menopausal status of women between the ages of 40-55 and to investigate the effects of their attitudes towards menopause on possible menopausal symptoms.

**Material and Methods:** 230 participants aged between 40-55 who applied to Ümraniye EAH Education Family Health Center were included in the study. All participants were asked to answer 47 questions including socio-demographic data, the menopausal attitude assesment scale (MAAS), and the menopause rating scale (MRS).

**Results:** The mean age of 230 women who participated in our study was 47.47±4.37 years, the mean MRS score was 12.78±8.96, and the mean MAAS score was 30.91±5.13. Their attitudes towards menopause and menapusal symptoms were above average and positive. It was found that MRS scores of non-menstrual women were higher than women who have irregular and regular periods ( $p<0.001$ ). It was found that women who quit smoking got higher MRS scores than those who smoke and never smoked ( $p = 0.006$ ). Women with primary education education level got lower MAAS scores than women with higher education level ( $p=0.026$ ). In our study, it was found that non-menstruating women, those who talked to their partner about their menopause, those who quit smoking and those who quit alcohol consumption had milder menopausal symptoms.

**Conclusion:** Postmenopausal symptoms may vary according to personal, cultural and socio-economic variables. Women should be encouraged to increase their level of knowledge and avoid consuming alcohol and smoking in order to reduce possible symptoms related to menopause and improve their quality of life. Family physicians can play a primary role in this regard.

**Keywords:** Woman, menopause, menopausal symptoms, menopausal attitudes

### Öz

**Amaç:** Bu çalışmada 40-55 yaş arası kadınların menopozal durumlarını ortaya koymayı ve menopozla yönelik tutumlarının, muhtemel menopoz semptomları üzerine etkilerini araştırmayı amaçladık.

**Materyal Metot:** Çalışmaya Ümraniye EAH Eğitim Aile Sağlığı Merkezine başvuran 40-55 yaş arası 230 katılımcı dahil edilmiştir. Her katılımcıdan sosyodemografik veriler, menopoz tutum değerlendirme ölçeği (MTDÖ) ve menopoz semptomlarını değerlendirme ölçeğinin (MSDÖ) ait soruları cevaplaması istendi.

**Bulgular:** Çalışmamıza katılanların yaş ortalaması 47,47±4,37 olup, MSDÖ puanı ortalaması 12.78±8.96, MTDÖ puanı ortalaması ise 30.91±5.13 idi. Menopozla yönelik tutumları ve semptomları orta seviyenin üzerinde ve olumluydu. Adet görmeyen kadınların MSDÖ puanları, düzenli veya düzensiz adet gören kadınlara göre daha yüksekti ( $p<0,001$ ). Sigara kullanıp bırakmış olanlar, kullanan ve hiç kullanmamışlara göre daha yüksek MSDÖ puanına sahipti ( $p=0,006$ ). İlköğretim mezunu olanların MTDÖ puanları, daha yüksek öğrenim durumu olanlara göre daha düşüktü ( $p=0.026$ ). Çalışmamızda adet görmeyenlerin, eşi ile menopoz hakkında konuşanların, sigara kullanıp bırakmış olanların, alkol kullanıp bırakmış olanların daha hafif menopoz semptomlarına sahip olduğu saptandı.

**Sonuç:** Postmenopozal semptomlar kişisel, kültürel ve sosyo ekonomik farklılıklara göre değişebilmektedir. Kadınlar menopozla bağlı muhtemel semptomları azaltmak ve yaşam kalitelerinin iyileşmesi için, bilgi düzeylerini arttırmaları, alkol ve sigaradan uzak durmaları konusunda teşvik edilmeliler. Bu konuda aile hekimleri birincil rol oynayabilir.

**Anahtar Kelimeler:** Kadın, menopoz, menopoz semptomları, menopozal tutumlar

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## INTRODUCTION

Menopause is a natural and ultimate situation in which estrogen and progesterone production decreases and the reproductive period ends due to the termination of the function of the ovaries in women (1). It is defined as "permanent cessation of menstruation due to loss of ovarian follicular activity" accompanied by vasomotor, psychological and sexual changes. The climacterium, on the other hand, is an intermediate period in a woman's life between the ages of 45 and 65, in which productivity decreases physiologically and functionally as aging continues.

Different approaches are applied for the relief of complaints that occur in the menopausal period. Diet/nutrition, lifestyle changes and exercise recommendations are among the preferred methods in this period in addition to Hormone Replacement Therapy, (2,3).

Guidance services and education that start from the premenopausal period may help identifying the factors that have an impact on the symptoms of the menopausal period and detecting them in the early period. Thus, patients' awareness of health will increase and it will be easier for them to struggle and cope with the social, psychological and physiological problems they experienced. With the increase in life expectancy, the population aged 65 and over is rapidly increasing all over the world, and the postmenopausal period has started to constitute one-third of a woman's life with the extended life expectancy (4).

Primary health care institutions are important in terms of evaluating the attitudes and perceptions of women towards menopause and raising their awareness level, as they are the facilities that women in the peri-menopausal period frequently refer and are followed up. In this study, we aimed to determine the menopausal symptoms of the participants and their attitudes towards menopause and examine the relationship between the symptoms and the attitudes using Menopause Rating Scale (MRS) and Menopause Attitude Assessment Scale (MAAS) (5,6).

## MATERIAL AND METHOD

Our study constitutes a sample of women aged 40-55 who applied to Umraniye Training and Research Hospital Education Family Health Center for any reason in November, December and January. The total female population between the ages of 40-55 years registered in the family health center is 458. In the power analysis, it was aimed to reach 220 people with a probability of error of 0.05 in order to find a 1% difference with 95% power. Our study is a descriptive and cross-sectional clinical study and was conducted by using the face-to-face questionnaire method.

### Inclusion criteria

Being a woman between 40-55 years old and registered with the family health center and agreeing to participate to the study.

### Exclusion criteria

Not agreeing to participate in the study, not being within above mentioned age limits

Menopause Attitude Assessment Scale (MAAS): This scale is developed by Koyuncu et al. in order to evaluate the menopause attitudes of women in the climacteric period. It's a Likert type of scale that consists of 13 items and 4 sub-dimensions. The items are scored between strongly disagree=0 and strongly agree=4. 1, 2, 3, 4, 5, 10, 12 and 13 in the scale are negative items. The score that can be obtained from the scale is between 0-52. An increase in the score indicates a positive attitude towards menopause.

Menopause Rating Scale (MRS): MRS was developed by Schneider to evaluate menopausal symptoms. Turkish validity and reliability study was conducted by Gürkan. It is a 4-point Likert-type scale consisting of 11 items and scoring between "0=None at all" and "4= Very severe". The score of the scale range between 0-44. The higher the score, the complaints about menopause are more severe.

Statistical analysis: Statistical numerical data were evaluated with normality test, skewness, and kurtosis and histogram and it was found that they did not fit the normal distribution. Kruskal Wallis, Mann Whitney-U, Chi-square test and Spearman correlation tests were used for statistical analysis between groups. Arithmetic mean, standard deviation, median and percentages will be used as descriptive statistics. The significance value in the 95% confidence interval was accepted as  $p < 0.05$ . In addition, the necessary ethics committee approval was obtained for the study.

## RESULTS

Our study was conducted with 230 women with a mean age of  $47.47 \pm 4.37$  years (minimum 40.0-maximum 55.0). It was determined that 205 (89.13%) of the participating women were married, 146 (63.48%) were university graduates, 145 (63.04%) were employed (Table 1).

The mean age of menarche of the women participating in our study was  $12.90 \pm 1.45$  years (minimum 9.0-maximum 13.0). It was determined that 84 of the participants (36.52%) had not had a period for 12 months, and 68 (29.57%) had regular periods. Mean menopausal age was found to be  $45.85 \pm 1.25$  years (Table 2).

The mean MRS total score was found to be  $12.78 \pm 8.96$  while the mean MAAS total score was  $30.91 \pm 5.13$ . The score distributions of the MRS and the MAAS are given in Table 3.

A statistically significant correlation was found between the participants' menstrual patterns and the total score of the MRS ( $p < 0.001$ ). A statistically significant correlation was found between the participants' talking about the menopause period with their spouses and the total score of the MRS ( $p = 0.004$ ). A statistically significant correlation was found between the MRS total score of the participants and their status of smoking ( $p = 0.006$ ).

A statistically significant correlation was found between the MRS total score of the participants and their status of alcohol use ( $p=0.029$ ) (Table 4).

A statistically significant relationship was found between the educational status of the participants and the total

score of the MAAS ( $p=0.026$ ) (Table 5).

A good positive correlation was found between the MRS somatic sub-factor and the psychogenic sub-factor ( $r=0.726$ ). In the MRS moderately positive correlation was found between the somatic sub-factor and the urogenital

**Table 1. Demographic characteristics of the participants**

		n (number of people)	% (percent)
<b>Your marital status</b>	Married	205	89.13
	Single	8	3.48
	Divorced/Widowed	17	7.39
<b>Your education level</b>	Primary education	60	26.09
	High School	24	10.43
	University	146	63.48
	Housewife	64	27.83
<b>Occupation</b>	Worker	7	3.04
	Private sector	20	8.70
	Retired	21	9.13
	white collar	21	9.13
	Public Officer	97	42.17
<b>Family type</b>	Nuclear	200	86.96
	Large family	20	8.70
	Lives alone	10	4.35
<b>Monthly income</b>	2300 TL	32	13.91
	2301-7000 TL	114	49.57
	7001 TL and above	84	36.52
<b>Education level of your spouse</b>	Primary education	26	12.62
	High School	38	18.45
	University	142	68.93
	Not working	6	2.91
<b>Your spouse's occupation</b>	Worker	5	2.43
	Private sector	82	39.81
	Retired	22	10.68
	white collar	17	8.25
	Public officer	74	35.92
<b>Number of pregnancies</b>	None	11	4.82
	One	27	11.84
	two	77	33.77
	three	69	30.26
	four	30	13.16
	five	10	4.39
	Six	4	1.75
	None	6	5.65
<b>Number of living children</b>	One	5	22.17
	two	82	53.48
	three	22	17.39
	four	17	1.30
	five	74	4.82

<b>Chronic disease</b>	None	134	58.26
	Yes	96	41.74
<b>Disease</b>	Hypertension	34	35.41
	Diabetes	31	32.29
	Thyroid diseases	17	17.70
	Malignancy	8	8.33
	Asthma/COPD	8	8.33
	Rheumatological diseases	7	7.29
	Hyperlipidemia	7	7.29
	Cardiovascular	5	5.20
	Neurological	3	3.12
	Other	3	3.12
<b>Smoking</b>	Never smoked	127	55.22
	I used, quit	39	16.96
	I am still smoking	64	27.83
<b>Alcohol</b>	Never used	158	68.70
	I used, I quit	23	10.00
	I am using	49	21.30

Table 2. Information about menstruation and menopause

	n(number of people)	%(percent)
<b>Age of first menstrual period</b>	9 years	2 0.87
	10 years	3 1.30
	11 years	34 14.78
	12 years	50 21.74
	13 years	71 30.87
	14 years	40 17.39
	15 years	21 9.13
	16 years	7 3.04
	17 years	1 0.43
<b>Talking to the spouse about the menopause process</b>	None	140 66.67
	Yes	70 33.33
	I did not receive any information	45 19.57
<b>Receiving information about the menopause process</b>	From health Health personnel	60 26.09
	Other	60 26.09
	Health personnel and other	65 28.26
<b>Menstrual irregularity</b>	I have regular periods.	68 29.57
	The time between my 2 menstrual periods was shortened or extended for more than 7 days	44 19.13
	I have not had a period for at least 60 days	11 4.78
	I missed 2 or more periods in a row	23 10.00
	I have not had a period for more than 12 months	84 36.52

Table 3. Distribution of participants' scale scores

	Mean	Median (min-max)
Menopause attitude evaluation scale	MRS total	12.78±8.96
	MRS somatic	4.46±3.54
	MRS psychological	5.31±3.93
	MRS urogenital	3.02±2.88
Menopause attitude evaluation scale	MAAS total	30.91±5.14
	Family relations	8.39±3.18
	Positive emotional	6.70±4.2
	Negative emotional	7.34±3.18
	Behavioral	4.88±2.08

Table 4. Comparison of MSAS total score and study variables

	Median	Minimum	Maximum	Test statistics	p	
Marital status	Married	12.00	.00	36.00	-0.546	0.585
	Not married	10.00	.00	29.00		
Education status	Primary education	13.50	1.00	36.00	4.081	.130
	High school	7.50	.00	29.00		
	University	12.00	.00	36.00		
Education status of the spouse	Primary education	10.00	1.00	29.00	0.402	0.818
	High school	11.00	.00	29.00		
	University	12.00	.00	36.00		
Family type	Nuclear	12.00	.00	36.00	4.363	0.113
	Extended family	7.00	.00	27.00		
	Living alone	11.00	.00	29.00		
Working status	Working	1.00	0.00	36.00	0.024	0.998
	Not working	12.00	0.00	36.00		
Monthly income	2300 TL	9.50	1.00	29.00	0.149	0.928
	2301-7000 TL	12.00	.00	36.00		
	7001 TL and above	12.00	.00	32.00		
Chronic disease	No	11.50	.00	36.00	-0.240	0.810
	Yes	12.00	.00	36.00		
Menstrual irregularity	I have regular periods.	.50	.00	28.00	37.487	<0.001
	The time between my 2 menstrual periods was shortened or extended for more than 7 days	12.00	.00	29.00		
	I have not had a period for at least 60 days	16.00	.00	36.00		
Talking with the spouse	No	11.00	.00	36.00	-2.871	0.004
	Yes	15.00	.00	35.00		
Smoking	Never smoked	12.00	.00	36.00	10.179	0.006
	I used, quit	11.00	.00	35.00		
	I am still smoking	12.00	.00	29.00		
Alcohol	Never used	13.00	.00	36.00	4.738	0.029
	I used, I quit	7.00	.00	26.00		
	I am still using	12.00	.00	32.00		

\*Mann Whitney-U, \*\*Kruskal Wallis

Table 5. Comparison of MAAS total score and study variables

		Median	Minimum	Maximum	Test statistics	p
Marital status	Married	32.00	15.00	48.00	-1.573	0.116
	Not married	31.00	26.00	44.00		
Education status	Primary education	30.00	17.00	39.00	7.262	0.026
	High school	32.00	20.00	37.00		
	University	32.00	15.00	48.00		
Education status of the spouse	Primary education	31.00	27.00	36.00	0.441	0.802
	High school	32.00	20.00	37.00		
	University	32.00	15.00	48.00		
Family type	Nuclear	32.00	15.00	48.00	0.441	0.802
	Extended family	30.00	25.00	36.00		
Working status	Living alone	34.50	27.00	44.00	-0.276	0.783
	Working	32.00	17.00	40.00		
Monthly income	Not working	31.00	15.00	48.00	3.007	0.222
	2300 TL	30.00	23.00	39.00		
	2301-7000 TL	32.00	15.00	44.00		
Chronic disease	7001 TL and above	31.00	21.00	48.00	-0.331	0.741
	No	31.50	15.00	44.00		
Menstrual irregularity	Yes	31.50	17.00	48.00	0.948	0.330
	I have regular periods	32.00	15.00	48.00		
	The time between my 2 menstrual periods was shortened or extended for more than 7 days	32.00	21.00	41.00		
Talking with the spouse	I have not had a period for at least 60 days	30.50	17.00	44.00	-0.311	0.756
	No	32.00	15.00	48.00		
Smoking	Yes	30.00	22.00	44.00	0.478	0.489
	Never smoked	31.00	17.00	44.00		
	I used, quit	31.00	20.00	48.00		
Alcohol	I am still smoking	32.00	15.00	44.00	0.124	0.725
	Never used	31.00	15.00	44.00		
	I used, I quit	32.00	21.00	48.00		
	I am still using	32.00	19.00	44.00		

\*Mann Whitney-U, \*\*Kruskal Wallis

Table 6 Correlation distribution between scales

	MSAS	MSAS somatic	MSAS psychologic	MSAS urogenital	MAAS	MAAS family relations	MAAS positive emotinal	MAAS Negatie emotinal	MAAS behavioral
MSAS	1.000	.881**	.901**	.799**	-.251**	-.190**	-.033	-.290**	-.174**
MSAS somatic	.881**	1.000	.726**	.581**	-.207**	-.124	-.079	-.174**	-.151*
MSAS psychologic	.901**	.726**	1.000	.582**	-.284**	-.167*	-.045	-.339**	-.146*
MSAS urogenital	.799**	.581**	.582**	1.000	-.136*	-.238**	.055	-.235**	-.176**
MAAS	-.251**	-.207**	-.284**	-.136*	1.000	.094	.471**	.608**	.472**
family relations	-.190**	-.124	-.167*	-.238**	.094	1.000	-.507**	.555**	.316**
positive emotinal	-.033	-.079	-.045	.055	.471**	-.507**	1.000	-.265**	-.302**
Negatie emotinal	-.290**	-.174**	-.339**	-.235**	.608**	.555**	-.265**	1.000	.506**
behavioral	-.174**	-.151*	-.146*	-.176**	.472**	.316**	-.302**	.506**	1.000

\*pearson correlation test

sub-factor ( $r=0.581$ ). In the MRS moderately positive correlation was found between psychogenic sub-factor and urogenital sub-factor ( $r=0.582$ ) (Table 6).

## DISCUSSION

The present study which included the women of age between 40-55 years revealed that the menopausal symptoms of the participants were below average and their attitudes towards menopause were positive in general.

The mean menopausal age was  $45.85 \pm 1.25$  years in our study. In similar studies in the literature, it was  $52.90 \pm 3.82$  years in Tunçarslan's (7) study,  $51.08 \pm 5.21$  years in Koyuncu's (8) study,  $54.03 \pm 10$  years in Alparslan's (9) study, and  $57.12 \pm 5.6$  years Cirban's study (10).

In the literature, studies about attitudes towards menopause have revealed conflicting results that are positive or negative. The MAAS total score, which was found to be  $27.86 \pm 8.06$  in the study of Cirban (10) and  $34.50 \pm 3.18$  in the study of Yağmur (11) and  $30.91 \pm 13.85$  in our study and our result was consistent with the literature.

While we found the mean positive emotional sub-factor score of the MTRS as  $6.70 \pm 4.20$ , it was found as  $14.11 \pm 4.04$  in Yağmur's (11) study and  $8.61 \pm 4.51$  in Cirban's (10) study. As the score has increased, the positive attitude towards menopause increased as well.

In our study, the mean negative emotional sub-factor score of the MTRS was determined as  $7.34 \pm 3.18$ . Our results were below the average in this sub-factor, where the positive attitude towards menopause increased as the score increased. The score was found to be  $8.29 \pm 2.73$  in Yağmur's (11) study and  $5.20 \pm 3.44$  in Cirban's (10) study.

The mean score of family relations sub-factor in the MAAS was determined as  $8.39 \pm 3.18$  in our study. Our results were below the average in this sub-factor, where the positive attitude towards menopause increased as the score increased. It was determined as  $10.05 \pm 2.76$  in Yağmur's (11) study and  $6.44 \pm 2.36$  in Cirban's (10) study.

The mean behavioral sub-factor score of the MAAS was found to be  $4.88 \pm 2.08$ . Our behavioral sub-factor results were below the average. In this scale the higher scores are interpreted as positive attitude towards menopause. The score was determined as  $5.66 \pm 2.17$  in Yağmur's (11) study and  $3.98 \pm 3.66$  in Cirban's (10) study.

The MRS total score was  $12.79 \pm 8.96$  (median 12) in our study. On the other hand, in the study of Yağmur (11), Cirban (10), Sis Çelik and Pasinlioğlu (8), Tunçarslan (7) and Alparslan (9) MRS total scores were  $17.11 \pm 9.43$ ,  $17.56 \pm 7.95$ ,  $22.67 \pm 8.06$ ,  $18.84 \pm 7.19$ , and  $16.11 \pm 10.34$  respectively. The scores being lower in our study compared to the literature was thought to be linked with the fact that 84 of the participants (36.52%) had been in menopause for a long time and that 68 (29.57%) of them had regular menstruation and thus felt menopausal symptoms less or may not have experienced them yet.

In our study the rate of high school and higher education was determined as 73.91%, which is above the country average. Similarly, the rate was 75.1% in Yağmur's (5) study, 51.4% in Alparslan's (6) study, 26.2% in Tunçarslan's (7) study, and 31.6% in Pasinlioğlu's (8) study. According to the findings in the literature, it has been reported that lower education level negatively affects menopausal symptoms (12-13). It can be suggested that women with higher education levels will be less affected by menopausal symptoms due to their higher health literacy. The fact that we could not find a significant difference between education status and menopausal symptoms in our study can be explained by the fact that 63.5% of the participants were university graduates.

In our study, there was no statistically significant difference between the educational status of the spouses of the participants and the MRS total score. Similarly, there are studies in the literature in which no statistically significant difference was found between spouse educational level and MRS total score (12-13). However, in the study of Tunçarslan (7), the MRS total score of the participants whose spouse educational level is literate/primary school was found to be higher than the other education levels. Similarly, in the study of Kökkaya (14), it was determined that the mean of the MRS total score decreased as spouse education level increased (14).

In our study, no statistically significant difference was found between the working status of the participants and the MRS total score. There are studies with similar results in the literature (12-15). In the study of Tunçarslan (7), the total MRS score of working women was found to be lower than that of non-working women. Alquaiz et al. (16) and Kalahroidi et al. (17) also found lower scores (symptoms) in working women. There are also studies in the literature showing that actively working women have less menopausal problems than non-working women (16-18-19).

Unlike our study, it was found in the literature that the MRS total score of women with good economic status was lower than those of women with poor financial status. (7-15) Kaulagekar (18) found in his study that the frequency of menopausal symptoms was lower in low-income women. High-income women are more likely to benefit from healthcare, which may explain why they have fewer symptoms. However, it should be remembered that families with low income levels may not care about menopause symptoms in their daily life problems and struggles.

The rate of nuclear family structure, which we found to be 86.9% in our study, was 81.6% in Koyuncu's (8) study, 80.7% in Güler's (20) study, and 70.2% in Çelik and Pasinlioğlu's (12) study. No statistically significant difference was found between the family type of the participants and the MRS total score. In the studies of Çelik and Pasinlioğlu (8), no relationship was found between menopausal symptoms and family type. In the study of Kaulagekar (18) it was determined that the

menopausal symptoms of women living in a nuclear type family were more severe. In families with nuclear family type, the fact that the woman is someone to share her social role and lack of support from family elders can be a problem, on the other hand the difficulties of life in extended families and the lack of personal space can affect menopause symptoms negatively.

In our study, it was determined that the participants who to quit smoking got lower scores than those who still smoke and never smoked. Chee et al. (15) reported that symptoms were seen more frequently in women who had quit smoking compared to women who had never smoked. In the study of Tunçarslan (7), it was determined that the MRS total scores of non-smokers were higher than those of smokers. In Essa's (21) study it was found that the risk of menopausal symptoms is approximately twice as high in women who smoke compared to women who do not smoke. In another study conducted with women in the climacteric period, no relationship was found between smoking status and menopausal symptoms (22). Smoking is known to lower estrogen levels. Considering that menopausal symptoms are related to estrogen withdrawal, it can be suggested that smoking may increase symptoms. Those who were smoking before the menopause will be less affected, since their estrogen levels are already low, and in those who were smoking before the menopause but quit smoking the relative increase in estrogen levels due to cessation of smoking may reduce symptoms.

In our study, an inverse and weak correlation was found between MAAS and MRS scales ( $r=-.251$ ). In the literature, it has been found that women with negative attitudes towards menopause have more severe menopausal symptoms (23-24).

## CONCLUSION

In general, it is seen that women have a positive attitude towards menopause. Negative attitudes towards menopause may cause severe symptoms, and conversely severe menopausal symptoms may negatively affect the attitude towards menopause.

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