

## ORIGINAL RESEARCH ARTICLE

# Attitudes of 45-55-year-old women in Istanbul, Türkiye, toward menopause and the symptoms of menopause: A cross-sectional study

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## Abstract

This study aimed to examine women's attitudes toward menopause and the symptoms of menopause. The data were collected between May-June 2022 using the introductory information form, Attitudes Related to Menopause Scale (min:0, max:80), and Menopausal Symptoms Rating Scale (min:0, max:44). The total average score of Menopausal Symptoms Rating Scale was  $22.2\pm 9.9$ ; the average of urogenital complaints was  $5.1\pm 3.2$ ; somatic complaints was  $3.55\pm 2.14$ ; and psychological complaints was  $13.5\pm 6.1$ . The average scale score of Attitudes Related to Menopause Scale was  $43.6\pm 16.1$ . There was a negative, weak, and significant relation between Attitudes Related to Menopause Scale and somatic, psychological, and urogenital complaints. There was a significant difference between the average score of attitudes related to menopause and women's total score on assessing the menopausal symptoms scale, women's age, education level, income status, employment status, number of pregnancies and births, and chronic disease status. We concluded that women experience all menopausal symptoms at near moderate levels and have positive attitudes toward menopause. (*Afr J Reprod Health* 2025; 29 [11]: 16-28).

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**Keywords:** Woman, menopause, attitude, symptoms, nursing

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## Résumé

Cette étude visait à examiner les attitudes des femmes à l'égard de la ménopause ainsi que les symptômes ménopausiques. Les données ont été recueillies entre mai et juin 2022 au moyen du formulaire d'information introductive, de l'Échelle des attitudes liées à la ménopause (min : 0, max : 80) et de l'Échelle d'évaluation des symptômes de la ménopause (min : 0, max : 44). Le score moyen total de l'Échelle d'évaluation des symptômes de la ménopause était de  $22,2\pm 9,9$  ; la moyenne des plaintes urogénitales était de  $5,1\pm 3,2$  ; celle des plaintes somatiques de  $3,55\pm 2,14$  ; et celle des plaintes psychologiques de  $13,5\pm 6,1$ . Le score moyen de l'Échelle des attitudes liées à la ménopause était de  $43,6\pm 16,1$ . Une relation faible, négative et significative a été observée entre cette échelle et les plaintes somatiques, psychologiques et urogénitales. Une différence significative a également été constatée entre le score moyen des attitudes liées à la ménopause et : le score total de l'échelle des symptômes ménopausiques, l'âge des femmes, leur niveau d'éducation, leur statut socio-économique, leur situation professionnelle, le nombre de grossesses et de naissances, ainsi que la présence d'une maladie chronique. En conclusion, il a été déterminé que les femmes éprouvaient l'ensemble des symptômes ménopausiques à un niveau proche du modéré et qu'elles avaient une attitude positive vis-à-vis de la ménopause. (*Afr J Reprod Health* 2025; 29 [11]: 16-28).

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**Mots-clés:** Femme, ménopause, attitude, symptômes, soins infirmiers.

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## Introduction

Some physical and mental changes occur in women during menopause because of estrogen deficiency, and some issues may be faced as a result. The main problems are muscle-joint pains, headaches, hot flashes, sleep issues, depression, decreased sexual desire, and stress incontinence.<sup>1</sup> Health issues that are likely to develop after menopause include cardiovascular disease risks, such as hypertension

and myocardial infarction, osteoporosis, urogenital disorders, diabetes, and vasomotor symptoms.<sup>2</sup>

It is well known that the attitude toward menopause is important for women in coping with the symptoms of menopause.<sup>3</sup> A study conducted in Sweden determined that more than half of women had positive attitudes toward menopause, while the rest had negative or neutral attitudes.<sup>4</sup> In a study conducted among women in Hong Kong, a generally positive attitude was detected toward menopause, with postmenopausal women having

a significantly higher attitude score toward menopause when compared to premenopausal women.<sup>5</sup> In a menopausal attitude study conducted in Iran, attitude toward menopause was found to be significantly affected by sweaty nights, poor memory, and insomnia.<sup>6</sup> It was found in another study that women who had low menopausal complaints had higher and more positive attitudes toward menopause. The researchers concluded that the attitudes of women who had menopausal complaints toward menopause were negative.<sup>7</sup>

The menopause period, which covers many years of a woman's life, is very important for the health of women. The services to be provided by nurses and healthcare professionals will have effects on menopausal symptoms and attitudes toward menopause. The nurse's contribution to the health of women is very important in managing symptoms and finding solutions. For this reason, it is very important to understand the association between a woman's symptoms and her attitude toward menopause. Few studies were detected in the literature examining the relationship between menopausal women's attitudes toward menopause and menopausal symptoms. It is considered that the present study will provide information to the nursing literature and guide nurses and healthcare staff in terms of the health of women.

This study aimed to examine women's attitudes during the period of menopause and the symptoms of menopause. The study sought answers to the following questions.

1. What is the mean score of women in the Attitudes Toward Menopause Scale and Menopausal Symptoms Rating Scale?
2. What is the relationship between the Attitudes Toward Menopause Scale and Menopausal Symptoms Rating Scale?
3. Which characteristics of women predispose them to the identification of a difference between the mean scores of the Attitudes Toward Menopause Scale and Menopausal Symptoms Rating Scale?

## Methods

### *Study design and participants*

This descriptive study was conducted in the gynecology outpatient clinics of a training and

study hospital located on the Anatolian Side of Istanbul in May-June 2022. The population of the study consisted of women who attended the gynecology outpatient clinic of the hospital. The women were randomly selected among women who could speak Turkish and were aged 45-55 years. All had been diagnosed with menopause and were those who agreed to participate in the study. Since the number of the universe was unknown, data collection began without sample calculation. After the data collection process began and 178 women were reached, a calculation was made using the G\*Power 3.0.10 program. The sample size was found to be sufficient with 90% power, 5% margin of error, and an effect size of  $d=0.25$ , and the data collection process was terminated.

### *Data collection tools*

#### *Descriptive information form*

The two-part form was prepared by the researchers using literature data.<sup>3,8</sup> The sociodemographic characteristics section, which includes age, marital status, education level, employment status and income rate, consisted of five questions. The section containing obstetrics, gynecology and general health-related features consisted of 10 questions.

#### *Attitudes toward menopause scale (ATMS)*

The ATMS originally developed by Neugarten and colleagues (1963) and later revised by Patsdaughter (1989), was employed to assess attitudes toward menopause, and the validity and reliability of its Turkish adaptation were examined by Uçanok and Bayraktar.<sup>9</sup> The scale had a 5-point Likert design, consisting of 20 questions. The scale assesses women's attitudes regarding the negative emotions it evokes, the negative impact on postmenopausal health, the negative impact on sexuality, and the uncertainty surrounding postmenopause.

Two items of the scale included positive statements (1. and 18. items), other items were negative statements. Responses were based on a woman's general feelings about menopause. Participants were asked to indicate the extent to which they agreed with each statement on the scale. Negative items were reverse-scored to ensure equal scores for both positive and negative items. If the ATMS

mean score was 40 points or above, a positive attitude was considered; if it was below 40 points, a negative attitude was considered. The internal consistency coefficient of the original scale was 0.86<sup>9</sup> and was found to be 0.91 for this study.

### ***Menopausal symptoms rating scale (MSRS)***

The MSRS was developed by Schneider *et al.*<sup>10</sup> The Turkish adaptation was made by Can Gürkan.<sup>11</sup> MSRS consisted of 11 items and 3 sub-dimensions (Somatic Complaints, Psychological Complaints, Urogenital Complaints). The somatic complaints section consisted of items 1 and 2, and the maximum possible score was 8. The Psychological complaints section consisted of items 3, 4, 5, 6, 7, and 11, and the maximum possible score was 24. The urogenital complaints section was measured by evaluating items 8, 9, and 10, and the maximum possible score was 12. There were no negative sentences in the scale. The scale had a 5-point Likert type, and each statement was scored as “0-None,” “1-Mild,” “2-Moderate,” “3-Severe,” and “4-Very severe”, ranging between 0-44. The increase in the total score obtained from the scale indicates increased severity of the complaints. The internal consistency coefficient of the scale was 0.84.<sup>11</sup> In this study, the internal consistency coefficient was found to be 0.89.

### ***Ethical consideration***

Permission for the study was obtained from the Non-Interventional Research Ethics Board of Üsküdar University on 31.01.2022 with the number 2022-69. Also, institutional permission was obtained. Written consent was obtained from women before starting data collection. Scientific publication ethics and the principles of the Declaration of Helsinki were considered in the planning and writing of the research.

### ***Statistical analysis***

Statistical analysis was made with SPSS-24. In line with parametric methods, the “Independent

Sample-*t*” test (*t*-table value) was used to compare the measurement values of two independent groups, and the “ANOVA Test” (F-table value) was used to compare the measurement values of three or more independent groups. Tukey’s Method was used for pairwise comparisons of the variables with significant differences for three or more groups, taking into account the homogeneity of variances. In line with non-parametric methods, the “Mann-Whitney U-Test” (Z-table value) was used to compare the measurement values of two independent groups, and the “Kruskal-Wallis H-Test” ( $\chi^2$ -table value) was used to compare the measurement values of three or more independent groups. The Bonferroni Correction was applied for pairwise comparisons of the variables with significant differences for three or more groups, and the “Spearman Correlation Coefficient” was used to examine the relationships of two quantitative variables that did not have a normal distribution.

## **Results**

The mean total MSRS score was 22.2±9.9; the highest mean scores for sub-dimensions were 13.5±6.1 (psychological), 5.18±3.2 (urogenital), and 3.6±2.1 (somatic), respectively. The mean ATMS score was 43.6±16.1 (Table 1).

A negative, weak, and significant relationship was detected between ATMS scores and somatic complaints, psychological complaints, urogenital complaints, and total MSRS scores ( $p < 0.05$ ). As somatic complaints, psychological complaints, urogenital complaints, and total MSRS scores increased, women’s attitudes toward menopause scale scores decreased. Similarly, as somatic complaints, psychological complaints, urogenital complaints, and total MSRS scores decreased, women’s attitudes toward menopause scale scores increased (Table 2).

The comparison of MSRS and ATMS mean scores of women is given in Table 3 according to their sociodemographic characteristics.

**Table 1:** ATMS and MSRS mean scores of women (n=178)

MSRS and sub-dimensions	$\bar{X}$	S.D.	Min	Max
<i>Somatic Complaints</i>	3.5	2.1	0.0	8.0
<i>Psychological Complaints</i>	13.4	6.1	0.0	24.0
<i>Urogenital Complaints</i>	5.1	3.2	0.0	12.0
<b>Total – MSRS</b>	22.2	9.9	0.0	44.0
<b>ATMS</b>	43.6	16.1	8.0	77.0

**Table 2:** The relationship between ATMS and MSRS scores (n=178)

Correlation*			ATMS
<b>MSRS</b>	<i>Somatic Complaints</i>	<i>r</i>	-0.403
		<i>p</i>	<b>0.000</b>
	<i>Psychological Complaints</i>	<i>r</i>	-0.518
		<i>p</i>	<b>0.000</b>
	<i>Urogenital Complaints</i>	<i>r</i>	-0.459
		<i>p</i>	<b>0.000</b>
<b>Total – MSRS</b>		<i>r</i>	-0.566
		<i>p</i>	<b>0.000</b>

\*Spearman correlation coefficient was used to analyze the relationships between two quantitative variables that do not have a normal distribution

It was found that the mean total MSRS, somatic, and psychological complaints mean scores of women aged 50 and under were significantly higher ( $p < 0.005$ ). The mean score of ATMS was found to be significantly lower in the same age group than that of women over 50. Married women's total MSRS and psychological complaints averages were significantly higher, and their ATMS mean scores were significantly lower than singles ( $p < 0.005$ ). A significant difference was detected in the total MSRS scores, somatic, urogenital, and psychological complaints scores according to the education level of the women ( $p < 0.005$ ). A significant difference was detected between the education level of the women and their ATMS mean scores ( $p < 0.05$ ). The total MSRS scores of those who were illiterate/literate were significantly higher compared to those with higher education and graduate degrees.

Similarly, the total MSRS scores of primary school graduates were significantly higher compared to those with higher education and graduate degrees. And in somatic complaints and psychological complaints, the scores of illiterate/literate students were significantly higher compared to those with higher education and graduate degrees. Somatic complaints and

psychological complaint scores of primary school graduates were significantly higher compared to those with graduate degrees. The psychological complaints scores of primary school graduates were significantly higher compared to those with higher education and graduate degrees. In terms of urogenital complaints, the complaint scores of the illiterate and primary school graduates were significantly higher compared to those of higher education graduates. A significant difference was detected between the education level of women and their ATMS mean scores ( $p < 0.05$ ). The ATMS scores of women who were illiterate/literate were significantly lower compared to those with higher education and graduate degrees. Similarly, the ATMS scores of women who were primary school graduates were significantly lower compared to those with higher education and graduate degrees.

It was also found that the total MSRS, somatic, psychological, and urogenital complaints mean scores of the unemployed women were significantly higher compared to those who were working, and the mean ATMS score was significantly lower ( $p < 0.05$ ).

A significant difference was detected in terms of total MSRS scores, somatic complaints scores, and psychological complaints scores

**Table 3:** Comparison of MSRS and ATMS mean scores of women according to their sociodemographic characteristics (n=178)

Categories	n	MSRS Somatic Complaints $\bar{X} \pm S. D.$	Psychological Complaints $\bar{X} \pm S. D.$	Urogenital Complaints $\bar{X} \pm S. D.$	Total MSRS $\bar{X} \pm S. D.$	ATMS $\bar{X} \pm S. D.$
<b>Age</b>						
≤50	63	4.1±1.9	14.9±5.8	5.5±3.4	24.5±9.5	39.8±16.1
>50	115	3.3±2.3	12.7±6.2	5.0±3.1	21.0±10.0	45.7±15.80
<i>Statistical analysis</i>		Z=-2.277	Z=-2.312	Z=-1.187	Z=-2.362	t=-2.370
<i>p</i>		<b>p=0.023</b>	<b>p=0.021</b>	<b>p=0.235</b>	<b>p=0.018</b>	<b>p=0.020</b>
<b>Marital status</b>						
Married	147	3.7±2.1	13.9±6.1	5.4±3.3	23.0±9.9	42.3±16.2
Single	31	3.1±2.4	11.3±5.9	4.1±2.5	18.6±9.5	50.2±14.5
<i>Statistical analysis</i>		Z=-1.221	Z=-2.140	Z=-1.871	t=2.287	t=-2.520
<i>p</i>		<b>p=0.222</b>	<b>p=0.032</b>	<b>p=0.061</b>	<b>p=0.023</b>	<b>p=0.013</b>
<b>Education level</b>						
Literate/non-literate <sup>(1)</sup>	21	4.8±1.8	16.4±5.3	6.8±3.5	27.9±9.2	32.7±11.5
Elementary <sup>(2)</sup>	58	3.9±2.2	15.7±4.9	5.9±3.0	25.6±8.3	39.7±16.9
Secondary Education <sup>(3)</sup>	34	3.7±2.1	13.1±6.3	4.8±3.1	21.7±10.1	42.8±13.5
Higher Education <sup>(4)</sup>	44	2.9±2.2	10.7±6.7	4.1±3.1	17.7±10.3	51.5±14.1
Graduate <sup>(5)</sup>	21	2.3±1.6	11.0±5.1	4.3±3.1	17.7±8.3	50.3±16.6
<i>Statistical analysis</i>		$\chi^2=18.732$	$\chi^2=23.606$	$\chi^2=14.437$	$\chi^2=25.703$	F=7.870
<i>p</i>		<b>p=0.001</b>	<b>p=0.000</b>	<b>p=0.006</b>	<b>p=0.000</b>	<b>p=0.000</b>
<i>Difference</i>		[1-4,5] [2-5]	[1-4,5] [2-4,5]	[1,2-4]	[1-4,5] [2-4,5]	[1-4,5] [2-4,5]
<b>Working status</b>						
Yes	51	2.9±2.0	11.1±5.8	4.1±2.9	18.1±8.9	50.3±16.5
No	127	3.8±2.1	14.5±6.0	5.6±3.3	23.9±9.9	40.9±15.2
<i>Statistical analysis</i>		Z=-2.469	Z=-3.373	Z=-2.694	Z=-3.604	t=3.635
<i>p</i>		<b>p=0.014</b>	<b>p=0.001</b>	<b>p=0.007</b>	<b>p=0.000</b>	<b>p=0.000</b>
<b>Income rate</b>						
Less than expense <sup>(1)</sup>	48	4.4±2.2	15.2±5.1	5.9±2.8	25.5±8.9	40.7±16.5
Equals expense <sup>(2)</sup>	91	3.4±1.9	13.6±6.1	4.9±3.4	22.0±9.7	43.4±15.5
More than expenses <sup>(3)</sup>	39	2.9±2.1	11.1±6.7	4.8±3.3	18.8±10.9	47.8±16.6
<i>Statistical analysis</i>		$\chi^2=11.107$	$\chi^2=8.455$	$\chi^2=3.254$	$\chi^2=9.396$	F=2.155
<i>p</i>		<b>p=0.004</b>	<b>p=0.015</b>	<b>p=0.197</b>	<b>p=0.009</b>	<b>p=0.119</b>
<i>Difference</i>		[1-2,3]	[1-3]		[1-3]	

according to the income levels of the women (p<0.05). The total MSRS score of those who had less income than expenditure was higher compared to those with more income than expenditure. The total somatic complaints score of those whose income was less than expenditure was significantly higher than those whose income was equal to expenditure and greater than their income, and the psychological complaints scores of those whose income was less than expenditure were significantly higher than those whose income was greater than expenditure. Table 4 shows the comparison of MSRS and ATMS mean scores of

women according to their obstetric and gynecological characteristics. A significant difference was detected in terms of total MSRS, psychological complaints mean scores, and the mean ATMS score of women according to the total number of births (p<0.05). There is a significant difference between the somatic complaint scores and ATMS mean scores of women who receive family support (p<0.05). A significant difference was detected in terms of total MSRS somatic, psychological, and urogenital complaints and ATMS mean scores according to the physical health status of women (p<0.05).

**Table 4:** Comparison of MSRS and ATMS mean scores according to obstetric and gynecological characteristics of women (n=178)

Categories	n	MSRS	Psychological	Urogenital	Total – MSRS	ATMS
		Somatic Complaints $\bar{X} \pm S. D.$	Complaints $\bar{X} \pm S. D.$	Complaints $\bar{X} \pm S. D.$	$\bar{X} \pm S. D.$	$\bar{X} \pm S. D.$
<b>Birth</b>						
1 <sup>(1)</sup>	25	3.4±1.9	12.0±6.4	4.1±3.0	19.5±10.1	53.2±15.8
2 <sup>(2)</sup>	66	3.2±2.3	11.9±6.1	4.9±3.1	20.2±9.6	47.7±15.8
3 <sup>(3)</sup>	32	3.6±2.1	13.6±6.1	5.3±3.7	22.5±10.8	38.9±13.8
4 ve üzeri <sup>(4)</sup>	45	4.3±1.9	16.8±4.9	6.1±3.2	27.2±8.1	35.6±16.2
<i>Statistical analysis</i>		$\chi^2=6.951$	$\chi^2=17.617$	$\chi^2=7156$	$F=5.686$	$F=10.196$
<i>p</i>		$p=0.073$	$p=0.00$	$p=0.067$	$p=0.001$	$p=0.000$
<i>Difference</i>			[1,2-4]		[1,2-4]	[1-3,4][2-3,4]
<b>Menopause age</b>						
≤45	29	3.8±2.1	13.5±5.9	4.7±3.2	21.9±9.3	46.7±14.9
46-49	80	3.3±2.1	13.8±5.9	4.8±3.2	21.9±9.5	43.1±16.3
≥50	69	3.7±2.3	13.13±6.5	5.8±3.2	22.6±10.8	42.9±16.4
<i>Statistical analysis</i>		$\chi^2=0.853$	$\chi^2=0.306$	$\chi^2=4.032$	$F=0.089$	$F=0.623$
<i>p</i>		$p=0.653$	$p=0.858$	$p=0.133$	$p=0.915$	$p=0.537$
<b>Family support</b>						
Yes	36	4.4±1.9	13.8±5.8	4.7±2.4	22.9±8.5	38.9±12.7
No	142	3.4±2.2	13.4±6.2	5.3±3.4	22.1±10.3	44.8±16.7
<i>Statistical analysis</i>		$Z=-2.327$	$Z=-0.457$	$t=-1.232$	$Z=-0.558$	$t=-2.344$
<i>p</i>		$p=0.020$	$p=0.648$	$p=0.222$	$p=0.77$	$p=0.022$
<b>Physical health</b>						
Good <sup>(1)</sup>	85	2.8±1.9	10.9±5.9	4.4±2.9	18.1±9.2	47.2±16.2
Intermediate <sup>(2)</sup>	81	4.3±2.1	15.6±5.5	5.8±3.4	25.7±9.3	41.7±15.2
Bad <sup>(3)</sup>	12	4.3±2.1	17.1±3.9	6.7±2.9	28.1±7.9	31.8±13.4
<i>Statistical analysis</i>		$\chi^2=21.592$	$\chi^2=27.005$	$\chi^2=9.638$	$F=16.724$	$F=6.220$
<i>p</i>		$p=0.000$	$p=0.000$	$p=0.008$	$p=0.000$	$p=0.002$
<i>Difference</i>		[1-2,3]	[1-2,3]	[1-2,3]	[1-2,3]	[1-3]
<b>Mental health</b>						
Good <sup>(1)</sup>	93	3.0±2.0	11.5±5.8	4.3±2.9	18.8±9.2	45.7±16.1
Intermediate <sup>(2)</sup>	71	3.9±2.2	14.8±5.7	5.6±3.0	24.3±8.9	43.4±15.7
Bad <sup>(3)</sup>	14	5.4±1.5	20.3±3.1	8.8±3.6	34.5±7.1	31.1±13.1
<i>Statistical analysis</i>		$\chi^2=18.343$	$\chi^2=31.731$	$\chi^2=19.888$	$\chi^2=31.982$	$F=5.273$
<i>p</i>		$p=0.000$	$p=0.000$	$p=0.000$	$p=0.000$	$p=0.006$
<i>Difference</i>		[1-2,3][2-3]	[1-2,3][2-3]	[1-2,3][2-3]	[1-2,3][2-3]	[1,2-3]
<b>Chronic Disease</b>						
Yes						
No	92	3.7±2.1	14.6±5.8	5.6±3.4	23.8±9.9	42.4±15.7
	86	3.4±2.2	13.2±6.3	4.8±3.0	20.5±9.7	44.9±16.5
<i>Statistical analysis</i>		$Z=-1.059$	$Z=-2.524$	$t=1.649$	$Z=-2.240$	$t=-1.013$
<i>p</i>		$p=0.290$	$p=0.012$	$p=0.101$	$p=0.025$	$p=0.313$

As a result of the Bonferroni-corrected pairwise comparisons made to determine which group caused the significant difference, the total MSRS, somatic complaints, psychological complaints, and urogenital complaints mean scores of those who felt moderate and bad physically were significantly higher compared to those who felt good. According

to mental health status, a significant difference was detected between the mean scores of ATMS, total MSRS, somatic, psychological, and urogenital complaints ( $p<0.05$ ). There are significant differences between ATMS mean scores according to the chronic disease and the status of receiving service for their complaints ( $p<0.05$ ).

## Discussion

The ATMS mean score of women was found to be 43.63. The scores that can be obtained from the scale are between “0” and “80”, and since the result was slightly above the average, it can be considered that women have a positive attitude toward menopause. Studies in the literature report similar results to this study.<sup>3,12,13</sup> Unlike the results of the present study, there are also studies in which the ATMS scores were reported to be below the average, and women’s attitudes toward menopause were found to be negative. In their study, Koç and Sağlam concluded that women are affected by all of the environmental and personal characteristics, as well as the physical changes caused by menopause.<sup>14</sup> It is considered that the emergence of different results in the studies is because of the regional and personal differences of the study groups.

It was found that the mean total MSRS score of the women was  $22.22 \pm 9.97$ , in other words, at a moderate level. When the sub-dimension scores were examined, the women complained most frequently of psychological (above average), urogenital (below average), and somatic (below average) complaints, respectively. The research found the mean MSRS score to be  $14.65 \pm 7.62$  in their study, and it was determined that they faced the most psychological complaints ( $8.96 \pm 4.94$ ), followed by somatic complaints and urogenital complaints.<sup>3</sup> Çoban et al. (2008) reported  $18.0 \pm 8.7$  points from the MSRS mean score in women, and it was determined that psychological complaints (one of the sub-dimensions of the symptom assessment scale) were faced more intensely.<sup>12</sup> In Guatemala, India, and Nigeria, somatic and psychological complaints of menopausal women were the most common symptoms.<sup>12,15-17</sup> The differences or similarities of the symptoms within the country and among countries in terms of frequency have caused differences by affecting the perceptions of menopause, socio-cultural differences, and living conditions of cultures.

When the relationship between the attitudes of women toward menopause and the symptoms they faced was examined, it was found that menopause symptom scores affected attitudes toward menopause (Table 1). The study reported

that the severity of psychological symptoms may negatively affect the attitude toward menopause, and women who have negative attitudes toward menopause have higher psychological symptoms.<sup>18</sup> Çoban *et al.* found that psychological complaints from the MSRS sub-dimensions were faced more intensely, and those with a positive attitude toward menopause had fewer menopausal complaints.<sup>12</sup> In their study, Tümer and Kartal found that women faced the most common psychological complaints, followed by somatic complaints and urogenital complaints in menopausal symptoms.<sup>3</sup> Cheng *et al.* found that vasomotor symptoms of Taiwanese women had negative impacts on menopausal attitudes.<sup>19</sup> In their study, Abay and Kaplan found that those who had positive perceptions of menopause had higher quality of life scores in general, sexual, health, and emotional areas compared to those with negative perceptions of menopause.<sup>20</sup>

Dündar and Aksu found that many of the participants had negative attitudes and that the ATMS scores were not affected by menopausal symptoms.<sup>8</sup> However, they also stated that having negative attitudes might play a role in women feeling menopausal symptoms more severely and more frequently. Oğurlu reported that women who had negative menopause attitudes faced more complaints of hot flashes, night sweats, and lack of sexual interest.<sup>13</sup> Rotem *et al.* concluded that as the severity of menopausal symptoms increased, women’s attitudes toward menopause became more negative.<sup>21</sup>

In a study conducted on Asian women, it was found that the attitudes were negative in women who faced menopausal symptoms more.<sup>22</sup> Kwak *et al.* determined that women with an attitude toward menopause better manage menopausal symptoms.<sup>23</sup> In the literature, it is seen that the frequency and severity of menopausal complaints differ according to countries.<sup>24</sup> This variability was also observed in studies conducted in urban and rural areas of the same country.<sup>14</sup> As well as the personal characteristics of women, the social and social norms of the culture they live in have affected their attitudes toward menopause and the symptoms they experience.<sup>25</sup> It is seen in the literature that the frequency and severity of menopausal complaints differ among countries. This variability was also

detected in studies conducted in urban and rural areas of the same country. The social and social norms of the culture women live in, the symptoms women experience, as well as the personal characteristics of women, affect their attitudes toward menopause. Women are exposed to a wide range of influences, including the roles and expectations assigned to women in societies, the level of development of that country, their perspectives on life, family structures, daily life routines, and food sources. This change within countries and regions is accompanied by climatic differences.<sup>8</sup>

Table 2 shows the comparison of MSRS and ATMS mean scores of women according to sociodemographic characteristics. The somatic and psychological complaints sub-dimensions and total MSRS mean scores of women who were aged 50 years and younger were significantly higher. In the study of Koç and Sağlam, it was reported that women who were between the ages of 55 and 60 experienced more hot flashes.<sup>14</sup> It was reported in the study data of Orhan that there was a negative significant relationship between the age of women in the menopausal period and their psychological complaints subscale scores; there was no significant relationship between somatic and urogenital complaints, and it was concluded that psychological complaints decreased as age progressed.<sup>26</sup> However, in some other studies, no significant differences were reported between the menopausal complaints of women and their age groups.<sup>1,13</sup> It can also be considered that women over 50 in menopause face certain effects of the postmenopausal period, discover solutions, or face fewer complaints because the symptoms have lost their former effects.

It was determined that women who were aged fifty and below had more negative attitudes toward menopause. This finding is also consistent with the fact that women aged 50 and below face more menopausal symptoms. K1sa *et al.* emphasized that the age of the woman affects the attitude during the menopause period, and older women exhibit more positive menopausal attitudes, and age has statistical importance on the attitudes.<sup>27</sup> Tortumluoğlu and Erci found no significant relationship between the attitude toward menopause and age in their study.<sup>28</sup> In this study, it is

considered that the way of entering menopause, having faced menopause in the postmenopausal period, gaining the ability to manage the symptoms, and adapting to the menopausal process decreased the frequency of severe symptoms in the first periods of menopause, and brought positive attitudes toward menopause.

It was found that the psychological complaints sub-dimension and total MSRS mean scores of married women were significantly higher. In some studies, in the literature, it is reported that marital status does not affect menopausal symptoms and the incidence of menopausal complaints.<sup>29,30</sup> In the study conducted by Özpınar and Çevik, it was reported that the severity of the complaints associated with menopause is higher in married women.<sup>31</sup> As a result of this study, it is possible to think that the fact that women are single reduces the psychological pressure and sensitivity caused by menopausal symptoms when compared to married women.

It was found that the marital status of women affected ATMS scores. It was concluded that single women had a more positive attitude toward menopause than married women. Yağmur found that urogenital symptoms were effective on family attitudes in her study.<sup>24</sup> Çoban *et al.* concluded that menopause negatively affects women's relationships with their spouses.<sup>12</sup> K1sa *et al.* found that although sexuality caused anxiety in menopausal women, it also affected their attitudes negatively.<sup>27</sup> Considering these data, it is possible to argue that the negativity that menopause will create in the lives of married women is associated with the effect it will have on their sexual life with their spouse, and that being single women reduces the psychological pressure and sensitivity caused by menopausal symptoms when compared to married women. It was also concluded that women whose marital status was single had more positive attitudes toward menopause. Considering educational status, it was found that women who had higher education and graduate education faced fewer menopausal symptoms. Tümer and Kartal found that 55.2% of women had high school or higher education levels, and menopausal complaints decreased with increasing years of education.<sup>3</sup> Çoban *et al.* reported that the education level of the women participating in their study was

effective in reducing the frequency and severity of menopausal complaints.<sup>12</sup> Oğurlu reported that as the level of education increased, most of the complaints associated with menopause decreased.<sup>13</sup> Koç and Sağlam determined that 50.4% of the participants were primary school graduates and concluded that hot flashes were more common in primary school graduates.<sup>14</sup> Orhan found that urogenital complaints were less in women who had low education and concluded that the increased education level of women was associated with increased access to information and healthcare services.<sup>26</sup> The result of this study shows parallelism with the literature data. It was determined that the fact that women who have an increased education level have easier access to information about the management of complaints caused by menopause is effective in decreasing the MSRS scores.

It was found that the ATMS scores of women who had higher education and graduate education levels were higher. The higher the education level, the more positive the attitudes of women toward menopause. In previous studies, it was concluded that education increases the mean score for attitude, as the level of education increases, the attitude toward menopause becomes positive, and the attitude toward menopause develops positively with the increased education levels, which is associated with the increased access to information and the utilization of healthcare services.<sup>3,18,26</sup> This study had similar results in this regard.

When working status was examined, it was found that working women faced fewer menopausal symptoms. Blumel *et al.* found that working women faced fewer menopausal symptoms than non-working women.<sup>32</sup> Studies conducted in the literature report that working women face fewer somatic and psychological complaints.<sup>13,26,28</sup> Tümer and Kaplan<sup>3</sup> reported that menopausal complaints are less common in working women than in non-working women. This study yielded results consistent with the studies in the literature. However, the fact that women have an active and working life in society has caused women to feel less discomfort brought about by menopausal symptoms because of their busy schedules during the day.

It was found that the attitudes of working women toward menopause were more positive than those who did not work. Gümüşay and Erbil reached a similar conclusion in their study, in which they examined the effects of menopause attitude on quality of life.<sup>33</sup> Working women were found to face menopausal symptoms at a lower level. For this reason, it can be considered that factors such as women experiencing symptoms at a low level, being in working life, and having opportunities for socialization are a result of this, and this positively affects the attitudes of working women toward menopause.

When the income levels of the women were reviewed, it was found that those whose income was higher than their expenses faced fewer somatic and psychological complaints, and the total MSRS mean score was significantly lower. Oğurlu and Tortumluoğlu and Erci reported that women who have low incomes face more menopausal symptoms.<sup>13,28</sup> In this study, it is considered that women who have lower income than their expenses faced more menopausal symptoms, especially high psychological symptoms, and women's livelihood anxiety, inadequate living conditions, unbalanced nutrition, and neglecting health issues may be the reason for this regard.

Table 3 shows the comparison of MSRS and ATMS mean scores of women according to obstetrical and gynecological characteristics. It was found that women who have four or more children face more somatic and psychological complaints, and their total MSRS mean score is significantly higher. Similar to this study, Çoban *et al.* reported that the incidence of menopausal symptoms increased with the increased number of children they had.<sup>12</sup> Orhan on the other hand, reported that as the number of children increases, psychological complaints also increase, but as the number of children increases, urogenital complaints decrease.<sup>26</sup> In this study, it is considered that the frequent changes caused by pregnancy and childbirth processes in the female body, as well as the increased responsibilities of having more children, caused some increased menopausal complaints.

It was found that women who have an increased number of children also have a more negative attitude. Yağcı *et al.* observed that women

who did not give birth had a positive attitude toward menopause, and women who were single and did not give birth had no anxiety in their lives; therefore, they may have had a positive attitude toward menopause.<sup>18</sup> The rate of menopausal women who received help from their families was found to be low (20.2%), and they faced somatic complaints more than those who did not receive help. When the studies in the literature were reviewed, Özgür *et al.* found that a very small proportion of menopausal women (17.5%) received support from their family after menopause, and in this study, the rate of complaints of women reporting hot flashes, sweating, headache, joint pain, insomnia, fatigue, and irritability was found to be high.<sup>34</sup> In their study, Koç and Sağlam found that women who received support from their environment faced fewer complaints, such as forgetfulness, joint pain, neck and headaches, than those who did not receive support.<sup>14</sup> In this study, it is considered that this result was found because women who faced more symptoms needed more family support.

When the physical and mental health of the women were evaluated, it was found that the frequency of experiencing all menopausal symptoms increased as both the physical and mental health of women deteriorated. In their study, Özgür *et al.* found that women who have good physical and mental health make more efforts to increase their self-care power, which is effective in managing menopausal symptoms.<sup>34</sup> In the present study, it was found that women who had chronic diseases faced more psychological symptoms, and their total MSRS mean score was significantly higher. Similar to the results of this study, Oğurlu found that women who have chronic diseases faced more complaints, such as headaches, dizziness, and palpitations.<sup>13</sup> Tümer and Kartal found that women in the menopausal period with chronic diseases experience more menopausal complaints.<sup>3</sup> Based on the findings of this study, it can be argued that women who do not consider their physical and mental health good and have chronic diseases have difficulty managing the symptoms they face because of menopause, and the severity of the symptoms is felt more than normal.

In their study, Özdemir and Kavak found that women's need for social support increases during this period so that they can cope with the physical and mental issues of the menopause period more easily, and as the perceived social support in the menopause period increases, their psychological well-being also increases.<sup>35</sup> In the present study, when the physical and mental health of women were evaluated, it was found that women had more negative attitudes toward menopause as both their physical and mental health deteriorated. It is considered that when women's physical and mental health is not good, the addition of menopause-specific complaints and the difficulty of managing this process make women's attitudes toward menopause negative.

### Limitations

The limitations of the study include the inability to generalize its findings due to the limited sample group, as participants were recruited from a single public hospital. Therefore, the results can only be evaluated for the study participants and applied to similar settings. Additionally, the outcomes may vary depending on the social and cultural status of women. For this reason, it is recommended that the study be conducted with a larger participant group across multiple locations and centers.

### Conclusion

In conclusion, it was found in the present study that women have a positive attitude toward menopause, their attitudes toward menopause affect the state of menopausal complaints, and as the positive attitude toward menopause increases, menopausal complaints decrease. Women must know their menopause period. This will be possible by raising awareness of women, after which the health issues faced by women during this period will be minimized, and this period will then become more comfortable. For this reason, firstly, nurses must evaluate women's attitudes toward menopause, and to increase positive attitudes, they must inform women accurately about menopause at an early age, before they enter menopause.

It can be recommended to develop a positive attitude toward menopause to reduce the severity and negative effects of menopausal symptoms, support women to cope with symptoms, and have midwives and nurses play active roles in this respect. The limitation of the study was that the study was conducted in only one training center. It is recommended to conduct prospective studies in different groups to uncover the effects of cultural characteristics.

### Authors contribution

Firdevs Tek Gökçer: Conceptualization, Methodology, Data curation, Resources.

Nuriye Pekcan: Conceptualization, Methodology, Supervision, Validation, Writing-Original draft preparation, Writing-reviewing-editing.

### Conflict of interest

The author declared no conflicts of interest.

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