

## Examining The Effect of Menopausal Symptoms on General Health Status in Postmenopausal Women

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### ABSTRACT:

**Purpose:** The aim of this study is to examine the effect of menopausal symptoms on general health status in postmenopausal women.

**Material and Methods:** Our study is a descriptive type of study. It was conducted on 223 women aged 45-65 who applied to a family health center between October and November 2019 and at least 12 months had passed since their last menstrual period. A personal information form developed by the researcher, Menopause Symptom Scale (MSDS) and General Health Questionnaire-28 (GHQ-28) were distributed to women who agreed to participate in the study. Descriptive statistics are used for individual information during statistical analysis of data. Chi-square test was used to evaluate the data obtained by counting.

**Results:** The mean MSDS score for women was 22.72. In the General Health Survey, it was determined that the subsections most affected by menopausal symptoms experienced by women were somatic symptoms, anxiety, sleep disorders and depression, social functioning and depression. Highly significant positive relationships were found between the Menopause Symptoms Assessment Scale and its subscales experienced by women and GHQ-28.

**Conclusion:** Menopause symptoms seen in postmenopausal women affect the general health of women. Women registered at the family health center need to plan menopause education and train regularly.

**Keywords:** Menopause; Menopausal Symptoms; Women's Health

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### INTRODUCTION

When human life is considered as a period, it is divided into certain periods because each period is unique and shows physical, emotional and hormonal changes (Çelik, 2015). The stages of a woman's life are discussed in four stages: adolescence, sexual maturity, climax and old age (Taşkın, 2016).

Menopause is one of the life periods of a woman and is a natural process that is a part of aging. The word menopause consists of the words meno (month) and pausis (pause), which are used to describe the end of the menstrual cycle. (Yavan and Köprülü, 2022).

According to Turkish Statistical Institute (TUIK, 2020) data; The average life expectancy of women in

Turkey is 81.3 years (Turkish Statistical Institute [TUIK], 2020). With the increase in life expectancy, the time women spend in the menopausal period is increasing, and the menopausal period constitutes an important part of women's lives. The number of women in the postmenopausal period is expected to exceed 1.1 billion in 2025 (Çelikkanat and Sohbet, 2020; Yavan and Köprülü, 2022)

Some changes occur in women due to the hormonal changes that occur during menopause. During the menopausal period, women experience changes in sexual function, physiological and psychosocial changes, from vasomotor symptoms to mood changes (Tümer and Kartal, 2018; Çelikkanat and

Sohbet, 2020). During menopause, women experience somatic complaints such as headache, palpitations, shortness of breath, sleep disorders, muscle and joint disorders, cardiovascular system diseases, vasomotor symptoms such as hot flashes and sweating, psychological complaints such as fatigue, malaise, weakness, anxiety, irritability, depression, and Urogenital complaints such as decreased sexual desire, stress incontinence, vaginal dryness, dyspareunia may be observed. While some women perceive these changes as normal and part of a natural process, some women may experience serious problems that negatively affect their lives. The incidence and severity of problems experienced during the menopausal period vary depending on the woman's sociocultural status, the way she entered menopause, her age at menopause, her sexual activity, her level of education, and her personal thoughts about menopause (Çelikkanat and Sohbet, 2020; Kurt and Arslan, 2020; Gönenç and Koç, 2019).

It is suggested that nurses and midwives play an active role in reducing the severity and negative effects of menopause symptoms, helping women develop positive attitudes towards menopause and coping with the symptoms (Tümer and Kartal, 2018). Although it is a common problem during menopause, it has been reported that many women are reluctant to discuss sexual health problems with other women or doctors because they find them embarrassing (Nappi and ark., 2018). For this reason, it is recommended that nurses working with menopause diagnose the sexual health of women in menopause, provide training and consultancy to improve the quality of women's sexual life, plan appropriate treatment procedures and refer them to a specialist if necessary (Süt and Küçükkaya, 2018).

For example, women's health nurses have the role of providing care, consultancy and education to improve the quality of life of women who spend an important and long period of their lives during menopause (Taşkın, 2016). In this period when life expectancy increases, the changes caused by menopause, which is a long period, cannot be ignored. This study was conducted to determine the effect of menopausal symptoms experienced by menopausal women on their general health.

## **MATERIAL and METHODS**

### **Purpose and Type of the Study**

This descriptive study was conducted to determine the effect of menopausal symptoms on general health status in postmenopausal women.

### **Research Questions**

- 1.What is the incidence and rate of menopausal fertility in women?
2. General health effects during menopause?
3. Is there a relationship between menopausal championship and general health status?
- 4.What are the factors affecting menopausal victories?

### **Sampling and participant**

The population of the research consisted of women between the ages of 45-65 who were registered to the family health center and at least 12 months had passed since their last menstrual period. Since the number of individuals in the target population is unknown, the sampling formula is used to determine the sample size when the population is unknown. In a previous study, the average score of the Menopause Symptoms Assessment Scale in women was found to be  $14.65 \pm 7.62$  (Tümer and Kartal, 2018) When the sample was calculated based on this average score, it was revealed that 223 women should be included in the study. The criteria for inclusion in the sample of the study were as follows: Women who agreed to participate in the study, who were affiliated with the family health center where the research was conducted, at least 12 months had passed since the last menstrual period, and who were between the ages of 45-65, were included.

### **Data Collection Tools**

*Personal Information Form, General Health Survey-28 (GHQ-28) and Menopause Symptoms Assessment Scale (MSDS) were used to collect data.*

In our study, data collection forms were applied through face-to-face interviews between October 2019 and November 2019 from women who applied to the Alibaba Family Health Center in the city center of Sivas and met the research criteria and agreed to participate in the study. Before the forms were applied, women were informed about the research.

The interviews lasted approximately 25 minutes for each woman, with an average of 5 minutes for the Personal Information Form and 20 minutes for the scales. In our research, the forms were filled out by the researcher.

### **Personal Information Form**

A personal information form containing the descriptive characteristics of women was developed by the researcher based on the literature and consisted of 15 questions. The personal information form includes questions regarding socio-demographic characteristics such as age, education level, smoking and alcohol consumption. Questions regarding obstetric and gynecological features; It arises from questions about the number of pregnancies, the number of surviving children, the method of menopause, the use of hormone replacement therapy, and if menopause was achieved, by what means.

### **Menopause Symptom Scale (MSDS)**

The scale was developed in German by Schneider, Heinemann et al. (1992). The currentness and development of the scale was studied by Gürkan (2005). Likert-type scale options for menopause are: 0: none, 1: mild, 2: moderate, 3: severe, and 4: very severe. The lowest score calculated from the scale is "0" and the highest score is "44". The scale covering menopause symptoms consists of 3 subscales and 11 items. Sub-dimensions are physical complaints (items 1, 2, 3 and 11), psychological complaints (items 4, 5, 6 and 7). Urogenital complaints (8th, 9th and 10th items). An increase in the total score obtained from the scale indicates that the diseases are getting worse, and the quality of life is negatively affected. The Cronbach's alpha reliability coefficient of the initial form of the scale is 0.84. Cronbach's alpha values of the subscales were found to be 0.65 for somatic symptoms, 0.79 for psychological symptoms and 0.72 for genital symptoms (Gürkan, 2005). In our study, the Cronbach's alpha value was calculated as 0.76.

### **General Health Questionnaire-28 (GHQ-28)**

The general health questionnaire was developed by Goldberg in 1972, and the study on the validity and

reliability of the questionnaire in Turkey was conducted by Kılıç in 1996. In the study conducted by Kılıç, the reliability (Cronbach's alpha) of GHQ-28 was found to be 0.94. The survey consisted of four subsections, each consisting of seven items. These parts: Physical symptoms include anxiety and sleep disorders, impairment in social functioning, and severe depression. The 28-item scale includes a question about whether each individual has recently filed a complaint and four-item responses ranging from "less than normal" to "more than normal." Accordingly, elements a, b are taken as "(0) 0", and elements c, d are taken as "(1) one". After the application, a minimum of 0 and a maximum of 28 points can be obtained, and higher scores increase the risk of mental health disorders (Kılıç, 1996).

### **Statistical Analysis**

The data obtained from our study were evaluated using the SPSS 23.0 program. Normality of data was tested using the Kolmogorov-Smirnov test. If the data met parametric conditions, they were analyzed by independent samples t test for two independent groups and F test (ANOVA) for more than two groups. When ANOVA was used to make comparisons with more than two groups, it was determined which groups deviated from the assumption using Tukey tests for those that met the homogeneity assumption and Tamhane's T2 tests for those that did not meet the homogeneity assumption. If one or all of the assumptions were not met, the Mann Whitney U test was applied to two independent groups and the Kruskal Wallis test was applied to more than two independent groups. Chi-square test was used to evaluate the data obtained by counting. The deviation level was taken as 0.05.

### **Ethical Approval**

Before implementation, ethics committee approval was obtained from the Non-Interventional Ethics Committee of Sivas Cumhuriyet University Faculty of Medicine, with the decision dated 07.08.2019 and numbered 2019-08/03. Turkish Republic, where the family health center where the study will be conducted is affiliated. Approval was received from Sivas Governorship Sivas Provincial Health Directorate. Since participation in the research was

voluntary, women were informed about the study and necessary permissions were obtained.

**RESULTS**

Table 1 presents the statistical data and Cronbach Alpha values of women's MSDS and its subscales. In our study, women's mean score in the "somatic symptoms" subscale of MSDS is 9.07±1.86, their mean score in the "psychological symptoms" subscale is 8.04±2.30, and their mean score in the "urogenital symptoms" subscale is 5.60±2.05, total MSDS score average was found to be 22.72±4.82.

Table 2 shows the findings regarding the severity of menopause symptoms in women. As can be seen when the table is examined, 55.6% had severe hot flashes and sweating, 39.5% had moderate heart problems, 51.1% had severe sleep problems, and

62.3% had malaise. , 54.7% reported being irritable, 51.6% experienced moderate levels of anxiety, 57% experienced severe physical and mental fatigue, 32.3% experienced severe sexual problems, 44% It was determined that 4.4% of the patients experienced moderate urinary problems, 47.5% experienced moderate vaginal dryness, and 69.5% experienced moderate bone and muscle disorders.

Table 3 examines the differences in the descriptive characteristics of women in terms of the menopause symptoms evaluation scale. Accordingly, while the difference between women's age groups in the scale sub-dimensions of somatic complaints (p=0.000) and urogenital complaints (p=0.001) was found to be significant (p<0.05), the difference in the psychological complaints dimension (p=0.667) was deemed insignificant (p>0.05).

**Table 1.** Statistical data of women's MSDS and its subscales, Cronbach Alpha values

MSDS subdimensions	Number of items	Lower and upper values that can be taken	Marked lower and upper values	Scale Cover. ±SS	Cronbach Alpha value
Somatic Symptoms	4	0-16	3,00-13,00	9,07±1,86	0,74
Psychological Symptoms	4	0-16	2,00-14,00	8,04±2,30	0,75
Urogenital Symptoms	3	0-12	1,00±10,00	5,60±2,05	0,78
Total MSDS	11	0-44	8,00±34,00	22,72±4,82	0,76

MSDS: Menopause Symptoms Assessment Scale, Mean: average, SD: Standard Deviation, t-test

**Table 2.** Distribution of Menopausal Symptoms Experienced by Women According to Severity

MSDS items	None (0)		Mild (1)		Moderate (2)		Severe (3)		Very severe (4)	
	n	%	n	%	n	%	n	%	n	%
1. Hot flashes, sweats	8	3,6	84	37,7	-	-	124	55,6	7	3,1
2. Heart disorders	28	12,6	80	35,9	88	39,5	25	11,2	2	0,9
3. Sleep problems	9	4,0	-	-	52	23,3	114	51,1	48	21,5
4. State of malaise	6	2,7	32	14,3	139	62,3	42	18,8	4	1,8
5. Irritability	10	4,5	65	29,1	122	54,7	26	11,7	-	-
6. Worry/Anxiety	15	6,7	61	27,4	115	51,6	30	13,5	2	0,9
7. Phys. and mental fatigue	-	-	10	4,5	84	37,7	127	57,0	2	0,9
8. Sexual problems	20	9,0	58	26,0	66	29,6	72	32,3	7	3,1
9. Urinary problems	33	14,8	70	31,4	99	44,4	19	8,5	2	0,9
10. Dryness in the vagina	3	1,3	39	17,5	106	47,5	69	30,9	6	2,7
11. Joint and muscle disorders	3	1,3	23	10,3	155	69,5	40	17,9	2	0,9

[MSDS] Menopause symptoms assessment scale. T test

While the difference between women's marital status and the somatic complaints ( $p=0.141$ ) and psychological complaints ( $p=0.972$ ) sub-dimensions was deemed insignificant ( $p>0.05$ ), the difference between the urogenital complaints dimension ( $p=0.000$ ) was statistically significant ( $p<0.05$ ).

**Table 3.** Examination of the Differentiation of Women's Descriptive Characteristics According to the Menopause Symptoms Evaluation Scale

Variable	somatic complaints			psychological complaints			Urogenital complaints		
	$\bar{x} \pm SS$	Min	max	$\bar{x} \pm SS$	Min	max	$\bar{x} \pm SS$	Min	max
Age									
45-50	7,85±2,19	3,00	13,00	8,01±2,44	2,00	14,00	4,85±2,19	1,00	10,00
51-55	9,11±1,67	6,00	13,00	8,09±2,39	2,00	13,00	5,31±2,05	1,00	9,00
56-60	9,50±1,61	6,00	13,00	7,78±2,24	2,00	12,00	5,76±2,02	2,00	10,00
61>	9,71±1,34	7,00	13,00	8,30±2,16	4,00	13,00	6,30±1,70	2,00	9,00
Analysis	<b>KW=13,420; p=0,000</b>			KW= 0,523; p=0,667			<b>KW=5,625; p=0,001</b>		
<b>Marital status</b>									
Married	9,07±1,92	3,00	13,00	8,07±2,24	2,00	14,00	6,02±1,94	1,00	10,00
Single	9,47±1,55	6,00	13,00	7,97±2,44	2,00	12,00	5,05±2,03	2,00	9,00
Divorced	8,58±1,85	5,00	13,00	8,03±2,48	2,00	12,00	4,16±1,84	1,00	8,00
Analysis	KW= 1,978; p=0,141			KW= 0,028; p=0,972			<b>KW= 13,651; p=0,000</b>		
<b>Education</b>									
illiterate	9,75±1,73	7,00	13,00	8,02±2,02	3,00	12,00	6,20±2,09	2,00	10,00
literate	9,14±1,97	3,00	13,00	8,50±2,62	2,00	14,00	5,82±1,96	2,00	10,00
Primary school	8,60±1,69	4,00	12,00	8,00±1,98	2,00	12,00	5,30±2,22	1,00	8,00
Middle school	7,43±2,27	3,00	13,00	7,39±7,39	2,00	11,00	4,13±1,69	1,00	7,00
High school	9,10±1,16	7,00	12,00	7,60±2,76	4,00	13,00	5,23±1,74	2,00	9,00
University and above	9,82±1,19	7,00	12,00	8,65±1,90	6,00	12,00	6,24±1,71	3,00	8,00
Analysis	<b>KW= 7,108; p=0,000</b>			KW= 1,227; p=0,297			<b>KW= 4,518; p=0,001</b>		
<b>Working status</b>									
not working	9,15±1,83	3,00	13,00	8,14±2,50	2,00	14,00	5,87±2,03	1,00	10,00
Retired	9,84±1,46	7,00	13,00	8,14±1,76	4,00	11,00	5,93±1,96	2,00	8,00
working	8,13±1,92	3,00	13,00	7,70±2,19	2,00	11,00	4,53±1,89	1,00	8,00
Analysis	<b>KW= 10,773; p=0,000</b>			KW= 0,674; p=0,511			<b>KW= 8,626; p=0,000</b>		
<b>Smoking</b>									
Yes	8,78±1,89	3,00	13,00	8,11±2,31	2,00	13,00	5,42±2,05	1,00	9,00
No	9,31±1,81	3,00	13,00	7,99±2,29	2,00	14,00	5,75±2,05	1,00	10,00
Analysis	<b>MW=4,560; p=0,034</b>			MW=0,162; p=0,688			MW=1,370; p=0,243		
<b>Number of pregnancies</b>									
1 time	8,48±1,95	5,00	13,00	8,67±2,50	2,00	14,00	4,81±2,09	1,00	8,00
2 times	8,91±2,03	3,00	13,00	8,30±1,79	5,00	12,00	5,33±2,23	1,00	10,00
3 times	8,69±2,05	3,00	13,00	7,65±2,45	2,00	12,00	5,60±2,05	1,00	9,00
4 times	9,00±1,71	6,00	13,00	7,49±2,29	2,00	12,00	5,69±2,00	2,00	10,00
5 times	9,88±1,45	7,00	13,00	8,00±2,24	4,00	13,00	5,77±1,95	2,00	10,00
6 and above	10,04±1,11	8,00	12,00	8,88±2,39	4,00	13,00	6,54±1,65	4,00	9,00
Analysis	<b>KW= 3,649; p=0,003</b>			KW= 2,113; p=0,065			KW= 2,135; p=0,062		
<b>Continuous drug use</b>									
Yes	9,47±1,69	3,00	13,00	8,27±2,10	2,00	13,00	5,98±1,86	2,00	10,00
No	7,79±1,80	3,00	11,00	7,48±2,73	2,00	14,00	4,44±2,27	1,00	8,00
Analysis	<b>MW=17,696; p=0,000</b>			<b>MW=3,017; p=0,047</b>			<b>MW=11,789; p=0,000</b>		
<b>Path to menopause</b>									
naturally	8,93±1,92	3,00	13,00	7,81±2,28	2,00	14,00	5,51±2,04	1,00	10,00
surgically	9,67±1,43	6,00	13,00	9,10±2,13	5,00	13,00	6,00±2,06	2,00	10,00
Analysis	<b>MW= 5,205; p=0,023</b>			<b>MW= 10,574; p=0,001</b>			MW= 1,846; p=0,176		
<b>Going to the doctor for menopause</b>									
Yes	9,12±2,01	3,00	13,00	8,67±2,13	2,00	14,00	5,84±2,01	1,00	10,00
No	9,00±1,67	3,00	12,00	7,33±2,29	2,00	12,00	5,31±2,06	1,00	10,00
Analysis	MW= 0,216; p=0,643			<b>MW= 20,272; p=0,000</b>			MW= 3,758; p=0,054		
<b>Receiving information about menopause</b>									
Yes	9,08±1,89	3,00	13,00	8,24±2,27	2,00	14,00	5,56±2,04	1,00	10,00
No	9,05±1,80	3,00	12,00	7,66±2,31	2,00	12,00	5,67±2,09	1,00	10,00
Analysis	MW= 0,010; p=0,921			MW= 3,158; p=0,077			MW= 0,146; p=0,703		

[SS] Standard deviation, Mann Whitney U test, Kruskal Wallis test, independent samples t test

**Table 3.** (Continued) Examination of the Differentiation of Women's Descriptive Characteristics According to the Menopause Symptoms Evaluation Scale

Variable	somatic complaints			psychological complaints			Urogenital complaints		
<b>Number of Living Children</b>									
None	8,77±1,09	7,00	10,00	8,77±1,85	5,00	11,00	5,44±2,06	3,00	8,00
one	8,29±2,23	4,00	13,00	8,54±2,73	2,00	14,00	4,91±2,20	1,00	8,00
2	8,79±1,94	3,00	13,00	7,97±2,14	2,00	12,00	5,40±2,18	1,00	10,00
3	8,97±1,51	3,00	13,00	7,51±2,30	2,00	12,00	5,30±1,84	2,00	10,00
4	9,76±1,51	7,00	13,00	8,28±2,20	3,00	12,00	6,10±1,72	2,00	9,00
5 and above	10,29±1,04	8,00	12,00	8,88±2,44	4,00	13,00	7,47±1,73	4,00	10,00
Analysis	KW= 3,992; p=0,002			KW= 1,701; p=1,136			KW= 4,551; p=0,001		
<b>Number of Miscarriages</b>									
None	9,05±1,93	3,00	13,00	8,02±2,27	2,00	14,00	5,54±2,22	1,00	10,00
one	9,00±1,78	4,00	13,00	7,96±2,37	4,00	13,00	5,73±1,62	1,00	9,00
2	9,38±1,61	4,00	12,00	8,38±2,40	5,00	12,00	5,27±1,87	2,00	9,00
3	9,25±1,70	7,00	11,00	8,50±2,51	5,00	11,00	7,25±1,50	5,00	8,00
Analysis	KW= 0,215; p=0,886			KW= 0,209; p=0,890			KW= 1,132; p=0,337		
<b>Number of Abortions</b>									
None	9,05±1,89	3,00	13,00	8,10±2,23	2,00	14,00	5,58±2,04	1,00	10,00
one	9,22±1,68	6,00	13,00	7,67±2,71	2,00	13,00	5,74±2,19	2,00	10,00
2	1,0±8,00	8,00	8,00	8,00±	8,00	8,00	5,00±	5,00	5,00
Analysis	KW= 0,280; p=0,756			KW= 0,468; p=0,627			KW= 0,124; p=0,884		
<b>Getting HRT from the doctor</b>									
I did not take	9,00±1,87	3,00	13,00	7,75±2,41	2,00	14,00	5,72±2,00	1,00	10,00
I'm still taking it	8,17±1,62	5,00	12,00	7,89±2,12	4,00	12,00	4,20±1,98	1,00	8,00
I bought it first, it's not there now	9,52±1,81	3,00	13,00	8,58±2,10	2,00	13,00	5,94±1,96	1,00	10,00
Analysis	KW= 5,906; p=0,003			KW= 3,047; p=0,050			KW= 8,468; p=0,000		

[SS] Standard deviation, Mann Whitney U test, Kruskal Wallis test, independent samples t test

While the difference between the educational status of women in the sub-dimensions of the scale, Somatic Complaints ( $p=0.000$ ) and Urogenital Complaints ( $P=0.001$ ), was found to be statistically significant, the difference in Psychological Complaints ( $P=0.297$ ) was found to be insignificant ( $p>0.05$ ). Similarly, while the difference in women's employment status in terms of somatic and urogenital complaints was found to be significant ( $p<0.05$ ), the difference in psychological complaints was found to be insignificant ( $p>0.05$ ).

While the difference in women's smoking status according to the somatic complaints sub-dimension was found to be statistically significant ( $p=.034$ ), the difference in the psychological and urogenital complaints sub-dimension was found to be statistically insignificant ( $p>0.05$ ). Similarly, the number of pregnancies differs significantly with the somatic sub-dimension ( $p<0.05$ ), while the difference with the psychological and urogenital complaints sub-dimension seems insignificant ( $p>0.05$ ).

As can be seen in Table 4, it was observed that the somatic symptoms dimension of the GHQ-28 subscale had a positive and strong relationship with all statements except heart diseases, which is the second of the statements in MSDS. It has been determined that the anxiety and sleep problems dimension has a positive and strong relationship with all of the statements in MSDS except heart diseases. It was observed that the impairment in social functions dimension had a positive and strong relationship with all expressions except hot flashes and sweating, while the depression dimension had a positive and strong relationship with all expressions except sexual problems in the scale, and it had a moderate positive relationship with the expression sexual problems. In addition, while the entire GHQ-28 scale was found to have a positive and strong relationship with the statements other than heart diseases in the MSDS scale and the sub-dimension formed by these statements, it was found to have a positive and moderate relationship with the statement of heart diseases.

**Table 4.** Effect of MSDS on Sub-Dimensions of GHQ-28 Scale

MSDS	GHQ-28				
	Somatic symptoms	Anxiety-sleep disorders	Social Function Corruption	Depression	GHQ-28
	r	r	r	r	r
1. Hot flashes, sweats	,326**	,380**	,086	,158*	,276**
2.Heart disorders	,069	-,015	,234**	,248**	,159*
3.Sleep problems	,567**	,614**	,541**	,289**	,605**
4. State of malaise	,398**	,409**	,328**	,478**	,471**
5. Irritability	,430**	,605**	,330**	,456**	,535**
6.Worry/Anxiety	,549**	,642**	,478**	,561**	,656**
7. Phys. and mental fatigue	,534**	,539**	,475**	,455**	,592**
8. Sexual problems	,347**	,306**	,326**	,132*	,335**
9. Urinary problems	,359**	,197**	,460**	,313**	,398**
10. Dryness in the vagina	,419**	,279**	,417**	,307**	,423**
11.Joint and muscle disorders	,420**	,343**	,418**	,269**	,434**
<b>MSDS Sub-dimensions</b>					
somatic	,514**	,486**	,502**	,378**	,560**
Psychological	,589**	,681**	,496**	,606**	,697**
urogenital	,489**	,346**	,521**	,318**	,501**
<b>MSDS whole</b>	<b>,688**</b>	<b>,661**</b>	<b>,653**</b>	<b>,571**</b>	<b>,763**</b>

\*: Correlation at 0.05 level; \*\*Correlation is at 0.01 level

Simple enrichment analysis was used in the comparisons in this table

## DISCUSSION

The distribution of the women participating in the study was examined according to some descriptive characteristics. As a result of this analysis, 26.9% of the participants were between the ages of 56-60, 69.1% were married, 26.9% had primary school education, 59.2% were not working, 53.8% were not working. It was determined that 80.3% of them did not smoke and 80.3% did not drink alcohol.

The average age of the 223 women who participated in our study was found to be 55.85. Contrary to the results of our study, the average age of women was found to be  $50.4 \pm 3.6$  years in Gözüyeşil and Başer's (2016) study.

In our study, it was found that 69.1% of postmenopausal women were married. In other studies, the rate of being married was found to be high in postmenopausal women (Özgen and Saka, 2022; Özdemir and Kavak Budak, 2021; Tümer and Kartal, 2018). The results of our study are similar to the literature.

In the study, it was determined that 26.9% of the participants were primary school graduates and 7.6% did not receive any education. In Alpar's study (2018), it was found that 56.4% of the participants were high school and university graduates, and in Kurt and Arslan's study, 55.4% of the women were primary school graduates. The

reason for the high level of education in our study is that as social conditions improve, women's education level increases, the importance of women's education increases and the importance of participation in working life increases.

In our study, it was found that 59.2% of postmenopausal women were not working. Similar to the results of this study, it has been found in various studies that postmenopausal women generally do not work in an income-generating job (Özgen and Saka, 2022; Özdemir and Kavak Budak, 2021).

In the study, the average MSDS score of women was determined as  $22.72 \pm 4.82$ . In the study conducted by Kurt and Arslan (2020), the average MSDS score of women was found to be  $17.6 \pm 8.8$ . In Alpar's (2018) study, the mean total score of the scale was reported as  $16.11 \pm 10.34$ . Our study differs from the literature.

In our study, the most common menopausal symptoms are somatic complaints, followed by psychological and urogenital complaints. In the study conducted by Tümer and Kartal (2018), it was found that women mostly complained of psychological symptoms. In the study conducted by Gümüşay and Erbil (2019), it was found that women mostly experienced physical complaints, followed by sexual, vasomotor and psychosocial complaints. The reason

for different results from different studies is that women's sociocultural characteristics, socio-demographic status and other lifestyle differences affect the severity and frequency of menopausal complaints.

In our study, it was revealed that the top 3 major complaints were physical and mental fatigue at a rate of 57.0%, heat and sweating at a rate of 55.6%, and sleep disorders at a rate of 51.1%, and our study is similar to some studies in the literature. In the study conducted by Khatoun et al. (2018) to determine women's menopausal symptoms, it was found that women experienced problems such as muscle and joint pain, malaise, heart diseases, fatigue, sleep problems, hot flashes, sweating and irritability at the highest rate. In the study conducted by Vaccaro et al. (2021), it was determined that the participants most frequently experienced muscle and hot flash problems. In line with the results of the study, although the studies were conducted in different regions and different cultures, it is evaluated that the effect of hormonal changes experienced during this period causes similar complaints in most women. According to the results of our study, it is evaluated that the reason for the differences in the severity of menopausal symptoms experienced by menopausal women is related to cultural factors, sociodemographic characteristics and age.

The somatic domain scores of women between the ages of 45-50 were found to be lower than the somatic domain scores of women between the ages of 51-65. Urogenital area scores of women between the ages of 45-50 were found to be lower than the urogenital area scores of women between the ages of 56-65. It has been determined that complaints in the urogenital and somatic areas increase with increasing age.

While the difference between women's marital status and the somatic complaints and psychological complaints dimensions, which are sub-dimensions of the scale, was deemed insignificant, the difference with the urogenital complaints dimension was found to be statistically significant. It was found that married women had higher urogenital area scores. In the study of Özpınar and Çevik (2016), it was found that all mean scores of married people were

significantly higher. In Iran, Ghazanfarpour et al. In a study conducted by, it was determined that there was a significant relationship between marital status and sexual symptoms (change in sexual desire, vaginal dryness, avoidance of sexual intercourse), and that single people had fewer sexual symptoms.

In our study, it was determined that the somatic and urinary field scores of unemployed women were higher than those who were employed. There are studies with similar results in the literature (Kurt and Aslan, 2020).

Ergin (2016) study, it was found that somatic and psychological symptoms were more common in non-working women.

These results may suggest that women who experience fewer problems and complaints about menopause may experience fewer complaints about menopause by engaging in an occupation for themselves, diverting their attention to other directions, and being in social environments.

In our study, the somatic complaints domain score of non-smoking women was found to be higher. In their study by Im et al. (2014), it was reported that women who had smoked before experienced menopausal symptoms more frequently than women who had never smoked.

Since estrogen levels in women who smoke are low before menopause, this may be one of the reasons why there is no sudden decrease in estrogen levels during the menopausal period and there is no significant difference in menopausal symptoms between smokers and non-smokers.

In our study, the number of pregnancies differs significantly with the somatic complaints sub-dimension, and the difference with the psychological and urogenital complaints sub-dimension seems insignificant. In our study, it was found that women with 4 or more pregnancies had higher somatic domain scores. Similar to the findings of our study, the study conducted by Çelik and Pasinlioğlu (2014) found that women with 6 or more pregnancies experienced menopausal symptoms at a higher rate than other women.

In our study, it was determined that the entire GHQ-28 scale had a positive and strong relationship with the other expressions in the MSDS scale, except



heart diseases, and the sub-dimensions in which these expressions were formed.

In our study, the anxiety and sleep disorders subscale of GHQ-28 has a strong positive relationship with all of the statements in MSDS except heart diseases. Similar to the results of our study, it is thought that the changing hormonal balance during menopause affects the central nervous system and causes changes in mood and behavior. It is very important to follow women during the menopause transition period in order to detect and prevent mental disorders that may occur over time (Erbil, 2018). When the studies conducted in the postmenopausal period are examined, Kalhan et al. (2020) in their study investigating the effect of menopausal symptoms on the quality of life between the ages of 40-60, found that the frequency of menopausal symptoms was 87.7%, the frequency of anxiety was 80%, fatigue was 71.5%, sleep problems was 71.5%. 61.2% and 70.8% reported a deterioration in quality of life.

Similar to the results of our study, Kim et al. (2018) showed in their study that the changes that occur after menopause negatively affect the person's quality of life and sleep.

In our study, the depression dimension from the GHQ-28 subscale has a strong positive relationship with all of the statements in the MSDS except sexual problems. Similar to the findings of our study, in an urban-centered study by Ahlawat et al. (2019), they stated that 58.4% of postmenopausal women had no depressive symptoms, 38.3% had mild depression, and 3.3% had moderate depression.

## CONCLUSION

The study found a positive and strong association between menopausal symptoms and overall postmenopausal health.

Women who come to the family health center should be informed about their level of knowledge about menopause, training should be planned for women who do not have knowledge about menopause and menopause problems, and exercise should be done at regular intervals. The number of places where women in menopause can easily reach and receive continuing education and consultancy services should be increased. One of the most

important factors affecting the overall health of women is menopause symptoms. Therefore, first of all, the symptoms of menopause in women should be carefully determined and treatment measures should be planned for each symptom.

## Conflict of Interest

Examining the effect of menopausal symptoms on general health status in postmenopausal women  
Conflict of Interest text There is no financial conflict of interest with any institution, organization or person regarding our article and the authors There is no conflict of interest between them.

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