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Determining the association between Turkish women's menopausal symptoms and their marital adjustment

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Aim: To determine the association between women's menopausal symptoms and their marital adjustment.

Materials and methods: A descriptive cross-sectional study was conducted on 263 Turkish women chosen using an improbable randomized sampling method. A questionnaire, the Menopause Symptom Rating Scale (MSRS), and the Dyadic Adjustment Scale (DAS) were used to collect data. Percentage distributions, the t-test in independent groups, the one-way ANOVA test, Pearson correlation analysis, and the Kruskal–Wallis test were used in the evaluation of the data.

Results: The mean of the overall MSRS score for women was 22.67 ± 8.06 and the mean of the overall DAS score for women was 105.93 ± 16.60. There was a significantly negative relationship between menopausal symptoms and marital adjustment (r: –0.357, P < 0.001), while the differences between MSRS total point averages according to women's age at marriage and total number of pregnancies were found to be statistically significant (P < 0.05). According to the comparison of the subscale mean score and the overall mean score obtained from the MSRS and DAS based on how women entered menopause, the difference between groups was statistically significant (P < 0.05, P < 0.001).

Conclusion: The level of marital adjustment decreased in line with the increase in menopausal symptoms suffered by women. It was determined that women whose age at marriage was 20 and over, according to MSRS total point averages, suffered from menopausal symptoms less. It was seen that women who had 6 or more pregnancies had more menopausal complaints. Women who entered menopause due to surgery experienced more menopausal complaints than those who entered menopause naturally, and women who entered menopause due to surgery had a better level of marital adaptation.

Key words: Menopause, menopause symptoms, marital adjustment

1. Introduction

Menopause is one of the natural and normal life stages experienced by women. The World Health Organization (WHO) defines menopause as 'the permanent stopping of monthly menstruation as a result of the permanent cessation of ovarian activity' (1,2). There is some variation in the age of onset of menopause between developed and developing countries (for example, 51 in America and 48 in Italy versus 46 in Egypt and 44 in Iran) (3,4). Women in Turkey typically experience menopause between the ages of 45 and 47 (3–8). As in many other fields, developments in technology have contributed to improvements in human health, primarily in extending lifespans, whether due to improved medical conditions or improved living conditions (2). According to 2009 data from the Turkish Statistical Institute (TÜİK), the anticipated lifespan of Turkish women is 76.1 years (9). A woman with this life expectancy spends one-third of her life in the menopausal period.

Throughout menopause, a woman experiences physical and emotional changes due to lack of estrogen, as well as other symptoms based on these changes. The leading complaints experienced by women are muscle/joint pains, headaches, hot flashes, sleeping disorders, depression, decreased sexual desire, and stress incontinence (6,9–12). In their study, Yurdakul et al. (13) determined that out of the 55% of women experiencing issues related to the menopausal period, 28.9% experienced physical complaints, while in 26.5% of these the symptoms were both physical and psychological. These types of changes had an adverse effect on interfamily interactions and the women's social lives (13).

It can be said that factors that negatively affect marital adjustment prevent spouses from being happy and limit their physical and spiritual satisfaction. In studies about marriage adjustment, various results were obtained about the fields in which marital adjustment was corrupted.

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Fields that were generally discussed in these studies were the personality structures of partners, attachment features, the quality of the sexual life between partners, the physical and spiritual situations of partners, and sociodemographic aspects that can affect marriage (14–17). In this context, hormonal changes in the period of menopause, namely a decrease in estrogen, have serious effects on women's lives. It is also a commonly held belief that this period has negative effects on women's spiritual health and causes depression because of the meanings attributed to women in this period. Psychological complaints in this period create negative feelings in women and can negatively affect relations in marriage and sexual life; frequent somatic complaints can also have a direct negative effect on the relationship in a marriage (12,18–20) and urogenital changes can harm the quality of the women's sexual lives (21,22).

As well as being a time when certain physical and psychological symptoms may be experienced, the menopausal period can also be a problematic time within the woman's family, and particularly so for their spouses (13). In their studies, Nehir et al. (23) and Çoban et al. (24) identified that 27.4% of women experienced adverse effects regarding their relationship with their spouse due to menopausal complaints, and they identified an inverse relationship between menopausal symptoms and marital adjustment. As menopause is a period that can bring with it deterioration in the quality of a woman's life as well as her marriage, it is a period that should be carefully considered by healthcare personnel.

Within the context of 21 health targets for the population established by the Turkish Ministry of Health, some of the objectives to be achieved by 2020 include making sure that individuals aged over 65 have optimal health opportunities; there should be at least a 20% increase in life expectancy; and the level of being able to live with intact autonomy, self-respect, and social status should be increased by at least 50% (25). In order for these objectives to be achieved it is very important that women experience a healthy menopause, which is a period that constitutes an important part of a woman's life. In compliance with this objective, caring standards developed by nurses are a step to help women experience a healthy, serene, and high-quality transition to old age.

The marriage partner is accepted as a significant support in mid-life; closeness with parents, relatives, or friends cannot be compared with the support of the partner. In this period, the "empty nest syndrome" begins as children grow up, get married, and leave the house. Women are alone with their husbands and need support from them more. However, problems in this period can harm the quality of life of women and have negative effects on relationships with their husbands (12,24). Early diagnosis of menopausal symptoms, planning of educational and consultancy services regarding these symptoms, and increased health awareness in women are extremely beneficial in terms of helping women cope with the physical, emotional, and social issues they experience when going through menopause. Increasing healthcare providers' awareness regarding the subject will improve the development and use of preventative health services.

There are few studies in Turkey investigating the effect that menopausal complaints have on marital adjustment; this underpins the need for this study of the association between the complaints associated with the menopausal transition and marital adjustment.

2. Materials and methods

This study was designed as a cross-sectional, descriptive, and relational study (26) and was conducted at the Menopause Polyclinic of Atatürk University Aziziye Research Hospital in a city in eastern Turkey. The study population comprised menopausal women under the age of 64 that attended this polyclinic with menopausal complaints between 18 December 2009 and 30 April 2010.

The study participants comprised 263 women chosen using a convenience sampling method. None refused to participate or dropped out of the study. We used some criteria for the sample group of the study. These were: at least a primary school graduate, no chronic diseases, no psychiatric history, and married with a living spouse.

Within the study, the following definitions were applied based on the work of the World Health Organization (2):

'Menopausal' is defined as the time when there have been no menstrual periods for 12 consecutive months and no other biological or physiological cause can be identified (2).

'Surgical menopause' is related to menopause that develops suddenly after the ovaries are surgically removed (2).

The target sample size for the study was based on the results of Cohen statistical power analysis (27).

2.1. Data gathering

Data were collected between 18 December 2009 and 30 April 2010. A questionnaire, the Dyadic Adjustment Scale (DAS), and the Menopause Symptom Rating Scale (MSRS) were used to gather data. The researchers administered the questionnaire and scales at the related polyclinic during face-to-face interviews with those women who fit the sample criteria and had agreed to participate in the study; the questionnaire and scales took approximately 10 min to complete.

2.2. Measurements

The questionnaire was prepared by the researchers following review of relevant literature (11,13,24). The questionnaire comprised 20 questions regarding

descriptive information and menopausal characteristics of the participating women.

The MSRS, originally known as the Menopause Rating Scale (MRS), was developed by Schneider et al. (28) in 1992 in order to measure the severity of menopausal symptoms; the original version of the scale was in German and it was adapted into English in 1996 (28–31). In 2005, Gürkan adapted the scale into Turkish and the Cronbach α coefficient was found to be 0.84 (32).

The Likert-type scale comprises 11 items and includes menopausal complaints. The severity of each item is scored with 5 possible answers: '0 = None', '1 = Mild', '2 = Moderate', '3 = Marked', and '4 = Severe'. Scores given for every item are taken at value to calculate the total score of the scale. The total score of the MSRS ranges from 0 (minimum score) to 44 (maximum score), while a higher score on the scale indicates the severity of complaints experienced (32). The scale has 3 dimensions:

1. Somatovegetative symptoms: The first and second items of the scale (4 symptoms: sweating hot flashes, cardiac complaints, sleeping disorders, joint and muscle complaints). The maximum score obtainable from this section is 8.

2. Psychological symptoms: Incorporates the 3rd to 7th and 11th items of the scale (4 symptoms: depressed, irritable, anxious, and exhausted). The maximum score obtainable from this section is 24.

3. Urogenital symptoms: Measured as a result of the 8th to 10th items of the scale (3 symptoms: sexual problems, urinary complaints, and vaginal dryness). The maximum score obtainable from this section is 12.

The Cronbach coefficient alpha computed for total scores of the MRS was 0.80. The Cronbach coefficient alphas computed for MRS subscales were as follows: somatovegetative symptoms: 0.49, psychological symptoms: 0.70, urogenital symptoms: 0.67.

The DAS was originally developed by Spanier (33) in 1976 in order to measure the quality of a marriage, marital adaptation, and the quality of the marital adaptation. In 2000, Fışıloğlu and Demir adapted the scale into Turkish (34).

The scale measures 4 dimensions of the relationship between married couples. These 4 dimensions constitute the subscales of the scale:

1. Dyadic consensus: This section comprises 13 questions (items 1–3, 5, and 7–15) regarding the level of agreement between married couples on important subjects and consensus between married couples. The maximum score obtainable from this section is 65.

2. Dyadic satisfaction: This section comprises 10 questions (items 16–23, 31, and 32) regarding the positive and adverse characteristics related to emotions and communication. The maximum score obtainable from this section is 50.

3. Affective expression: This section comprises 4 questions (items 4, 6, 29, and 30) regarding affectionate behavior and agreement on the form of affection displayed. The maximum score obtainable from this section is 12.

4. Dyadic cohesion: This section comprises 5 questions (items 24–28) regarding the time couples spend together. The maximum score obtainable from this section is 24 (34).

The scale has a total of 32 questions, with items scored according to the level of agreement with statements, and the scale is rated using the total overall score. The score of the DAS ranges between 0 (minimum) and 151 (maximum), with higher scores indicating a high level of marital adaptation.

The Cronbach coefficient alpha computed for the entire DAS was 0.86. Cronbach coefficient alphas computed for DAS subscales were as follows: dyadic consensus: 0.88, dyadic satisfaction: 0.67, affective expression: 0.81, dyadic cohesion: 0.52.

2.3. Statistical analyses

A statistical package program (SPSS 16.0) was used to conduct data analysis. In the evaluation of the data, percentage distributions, t-tests in independent groups, the one-way ANOVA test, Pearson correlation analysis, and the Kruskal–Wallis test were used.

2.4. Ethical issues

Prior to initiating the study, written permission was obtained from the hospital at which the study was to be conducted and approval was obtained from the Clinical Research Ethics Committee of the Erzurum Provincial Directorate of Health.

In an effort to protect the rights of the women participating in the study, the study complied with various ethical principles. The women were informed of the purpose of the study ('informed consent' principle); they were informed that the information they provided would be kept confidential ('confidentiality and protecting confidentiality' principle); and only those volunteering to participate in the study were included ('respect for autonomy' principle). In addition, the women were given the opportunity to ask questions after the questionnaire, which provided them with additional knowledge.

3. Results

The following results were obtained from this study and outline the association between menopausal complaints and marital adaptation.

Table 1 illustrates the participants' descriptive characteristics and comparison between score means of both scales based on descriptive characteristics.

Descriptive characteristics of the women participating in this study showed that 59.3% were aged between 45 and 54, 84.8% were primary school graduates, and 89.4% were

Table 1. The participants' descriptive characteristics and comparison between the score means of both scales based on descriptive characteristics.

Variable (n = 263)	N	%	MSRS total, mean ± SD	Test and P-value	DAS Total, mean ± SD	Test and P-value
Age						
35–44	21	8.0	22.80 ± 8.58	KW: 0.230 P > 0.05	106.90 ± 12.04	KW: 0.097 P > 0.05
45–54	156	59.3	22.79 ± 7.76		106.23 ± 16.71	
55–64	86	32.7	22.43 ± 8.55		105.16 ± 17.46	
Education level						
Primary school	223	84.8	23.18 ± 7.80	KW: 5.026 P > 0.05	106.19 ± 15.97	KW: 0.425 P > 0.05
Secondary school	15	5.7	19.13 ± 8.69		105.73 ± 16.36	
Higher school and over	25	9.5	20.24 ± 9.27		103.80 ± 22.08	
Employment status						
Unemployed	235	89.4	22.84 ± 7.86	KW: 1.304 P > 0.05	105.85 ± 15.84	KW: 3.978 P > 0.05
Employed	13	4.9	20.23 ± 6.39		101.38 ± 24.77	
Retired	15	5.7	22.13 ± 11.95		111.26 ± 19.67	
Age of spouse						
45–54	118	44.9	22.53 ± 7.26	F: 1.887 P > 0.05	105.89 ± 14.72	F: 0.331 P > 0.05
55–64	111	42.2	23.50 ± 8.79		106.59 ± 17.50	
65–75	34	12.9	20.47 ± 8.00		103.94 ± 19.79	
Level of spouse's education						
Primary school	140	53.2	22.99 ± 7.85	F: 1.605 P > 0.05	106.87 ± 16.27	F: 0.589 P > 0.05
Secondary school	40	15.2	24.05 ± 9.70		103.85 ± 15.20	
Higher school and over	83	31.6	21.48 ± 7.47		105.36 ± 17.81	
Profession of spouse						
Civil servant	60	22.8	21.85 ± 7.47	F: 1.104 P > 0.05	106.96 ± 15.63	F: 1.513 P > 0.05
Worker	47	17.9	21.29 ± 7.90		109.97 ± 16.17	
Self employed	50	19.0	23.52 ± 9.22		104.66 ± 16.15	
Retired	106	40.3	23.35 ± 7.85		104.16 ± 17.37	
Family type						
Nuclear family	185	70.3	22.68 ± 8.00	t: 0.013 P > 0.05	105.04 ± 16.73	t: 1.350 P > 0.05
Extended family	78	29.7	22.66 ± 8.26		108.06 ± 16.20	
Income level						
Low	58	22.0	25.77 ± 7.71	KW: 10.018 P > 0.05	102.93 ± 17.59	F: 3.421 P > 0.05
Average	179	68.1	21.88 ± 8.20		107.70 ± 15.83	
Good	26	9.9	21.19 ± 6.17		100.50 ± 18.00	
Age at marriage						
19 or below	166	63.1	23.81 ± 7.95	t: 3.052 P < 0.05	106.06 ± 17.08	t: 0.154 P > 0.05
20 or over	97	36.9	20.72 ± 7.92		105.73 ± 15.82	
Duration of marriage, years						
30 and below	108	41.1	21.90 ± 7.54	F: 1.780 P > 0.05	105.18 ± 16.03	F: 1.649 P > 0.05
31–40	120	45.6	23.69 ± 8.07		107.69 ± 16.61	
41 and over	35	13.3	21.57 ± 9.34		102.25 ± 17.94	

unemployed. Regarding their spouses, 44.9% were aged between 45 and 54, 53.2% were primary school graduates, and 40.3% were retired. A total of 70.3% of the women had a nuclear family and 68.1% had an average income level. Most (63.1%) of the women were married for the first time at the age of 19 or younger, while 45.6% were married between the ages of 31 and 40 years.

When MSRS and DAS total point averages according to the defining characteristics of the women were analyzed, it was determined that the differences between MSRS and DAS total point averages according to the employment status of the women, age group, educational level and the profession of their spouses, type of their families, income level, and the length of their marriage were not statistically significant (P > 0.05; Table 1).

While the difference between MSRS total point averages according to the women's marriage age was found to be statistically significant (P < 0.05), it was found that the difference between age at marriage and DAS total point average was not significant (P > 0.05). It was determined that the women whose marriage age was 20 and over, according to MSRS total point averages, experienced fewer menopausal symptoms. According to DAS total point averages, marriage age did not affect adjustment in marriage (Table 1).

Table 2 illustrates the participants' obstetric characteristics and comparison between the score mean of both scales based on obstetric characteristics.

Obstetric characteristics of women participating in this study showed that 51.3% of women gave birth 6 or more times, 36.5% of women had 5 or more living children, and 30% of women were living with 3 or more children.

When MSRS and DAS total point averages according to obstetric characteristics of women were compared (Table 2), the difference between the MSRS total point averages according to the total number of pregnancies was found to be statistically significant (P < 0.05); however, the difference between DAS total point averages according to total pregnancy number was not statistically significant (P > 0.05). According to the Bonferroni post hoc test, this significantly resulted from the group that had 6 or more pregnancies, according to MSRS point averages. According to this, it was seen that women who had 6 or more pregnancies had more menopausal complaints.

It was found that MSRS and DAS total point averages according to number of living children and number of children the women live with was not statistically significant (P > 0.05).

Table 3 illustrates the participants' menopausal characteristics and comparison between the subscale score mean and the overall score mean of MSRS based on the menopausal characteristics.

Menopausal characteristics of women participating in this study showed that 84.8% of women entered menopause naturally, 15.2% entered menopause surgically, 33.1% were going through premenopause, and 34.2% were going through postmenopause.

According to the comparison of the subscale mean score and the overall mean score obtained from the MSRS based on how the women entered menopause, the difference between groups was statistically significant (P < 0.05, P < 0.001). These results appear to indicate that women who enter menopause due to surgery experience more menopausal complaints than those who enter menopause naturally.

Table 2. The participants' obstetric characteristics and comparison between the score means of both scales based on obstetric characteristics.

Variable (n = 263)	N	%	MSRS total, mean ± SD	Test and P-value	DAS total, mean ± SD	Test and P-value
Total number of pregnancies						
1–3	47	17.9	19.80 ± 7.57	F: 6.768 P < 0.05	105.44 ± 13.66	F: 0.992 P > 0.05
4–5	81	30.8	21.60 ± 7.74		108.07 ± 17.31	
6 or more	135	51.3	24.31 ± 8.08		104.82 ± 17.08	
Number of children						
1–2	43	16.3	21.39 ± 8.12	F: 2.909 P > 0.05	102.18 ± 16.65	F: 2.144 P > 0.05
3–4	124	47.2	21.91 ± 7.81		107.92 ± 16.66	
5 or more	96	36.5	24.22 ± 8.19		105.05 ± 16.30	
Number of children living with the participants						
0	62	23.6	22.79 ± 8.63	F: 0.118 P > 0.05	106.40 ± 14.77	F: 0.083 P > 0.05
1–2	122	46.4	22.42 ± 8.11		106.09 ± 17.87	
3 or more	79	30.0	22.97 ± 7.61		105.32 ± 16.09	

Table 3. The participants' menopausal characteristics and comparison between the subscale score means and the overall score means of MSRS based on menopausal characteristics.

Variable (n = 263)	N	%	Somatovegetative symptoms, mean ± SD	Psychological symptoms, mean ± SD	Urogenital symptoms, mean ± SD	MSRS total, mean ± SD
Entrance into menopause						
Natural menopause	223	84.8	4.14 ± 2.11	13.07 ± 4.57	5.33 ± 3.05	22.55 ± 8.00
Surgical menopause	40	15.2	4.45 ± 1.92	13.45 ± 4.77	5.45 ± 3.32	23.35 ± 8.49
t			3.006	4.422	3.887	4.848
P			P < 0.05	P < 0.001	P < 0.001	P < 0.001
Climacterium stage						
Premenopause	87	33.1	4.2 2± 2.19	13.55 ± 4.31	5.25 ± 2.66	23.03 ± 7.43
Perimenopause	86	32.7	4.12 ± 2.02	12.77 ± 4.56	5.45 ± 2.85	22.36 ± 7.47
Postmenopause	90	34.2	4.22 ± 2.06	13.05 ± 4.89	5.35 ± 3.67	22.63 ± 9.19
F			0.064	0.627	0.090	0.152
P			P > 0.05	P > 0.05	P > 0.05	P > 0.05

No statistically significant difference was identified between the subscale score mean and the overall score mean obtained from the MSRS based on their climacterium stages (P > 0.05).

Table 4 illustrates the participants' menopausal characteristics and comparison between the subscale score mean and the overall mean DAS score based on menopausal characteristics.

According to the comparison of the mean score of the other subscales, excluding 'dyadic satisfaction', and the overall mean score obtained from the DAS based on how women entered the menopause, the difference between groups was statistically significant (P < 0.001, P < 0.05). According to these results, women who enter menopause due to surgery have a better level of marital adaptation.

No statistically significant difference was identified between the subscale score mean and the overall score mean obtained from the DAS based on climacterium stages (P > 0.05).

Table 5 illustrates the average scores and related standard deviations that the women scored from the subscales of the MSRS and the DAS, and the total mean score from both scales.

The mean of the overall MSRS score for women was 22.67 ± 8.06 and the mean of the overall DAS score for women was 105.93 ± 16.60.

Table 6 illustrates the strength of the linear relationship between the 2 variables of relationship between the subscale mean score and the overall mean score of the MSRS and the DAS.

There was a statistically significant negative relationship between the somatovegetative symptoms subscale score (MSRS) and the dyadic cohesion and the dyadic consensus subscales scores (DAS) (P < 0.05), as well as with the affective expression subscale score (DAS) (P < 0.001), although the strength of the correlations was weak to moderate.

There was a statistically significant negative relationship between the psychological symptoms subscale score (MSRS) and the dyadic cohesion, the dyadic consensus, and affective expression subscale scores (DAS) (P < 0.001), as well as with the dyadic satisfaction subscale score (DAS) (P < 0.05).

There was a statistically significant negative relationship between the urogenital symptoms subscale score (MSRS) and the dyadic cohesion, dyadic consensus, and affective expression subscales and the overall DAS score (P < 0.001), as well as between the dyadic satisfaction subscale score (DAS) (P < 0.05).

There was a statistically significant negative relationship between the overall MSRS score and the dyadic cohesion, dyadic consensus, and affective expression subscale scores (DAS) and the overall DAS score (P < 0.001).

According to these results, there is a statistically significant inverse relationship between the MSRS and the DAS (r: –0.357, P < 0.001). In other words, as menopausal complaints increase in women, marital adaptation deteriorates.

4. Discussion

The results obtained from this study are discussed in line with the relevant literature.

When MSRS and DAS total point averages according to the defining characteristics of women were analyzed, it

Table 4. The participants' menopausal characteristics and comparison between the subscale score means and the overall score means of DAS based on the menopausal characteristics.

Variable (n = 263)	N	%	Dyadic consensus,	Dyadic satisfaction,	Affective expression,	Dyadic cohesion,	DAS total,
			mean ± SD	mean ± SD	mean ±SD	mean ± SD	mean ± SD
Entrance into menopause							
Natural menopause	223	84.8	50.50 ± 8.08	36.25 ± 6.75	8.20 ± 2.10	10.39 ± 4.71	105.36 ± 16.36
Surgical menopause	40	15.2	50.55 ± 6.47	39.17 ± 11.10	8.25 ± 2.18	11.15 ± 4.81	109.12 ± 17.75
t P			3.620 P < 0.001	0.922 P > 0.05	5.506 P < 0.001	2.734 P < 0.05	2.716 P < 0.05
Climacterium stage							
Premenopause	87	33.1	49.71±7.74	36.97 ± 5.70	7.94 ± 2.20	9.63 ± 3.91	104.26 ± 14.93
Perimenopause	86	32.7	50.46±6.78	36.18 ± 7.10	8.19 ± 1.90	10.79 ± 5.14	105.63 ± 16.71
Postmenopause	90	34.2	51.33±8.83	36.92 ± 9.55	8.48 ± 2.19	11.10 ± 4.96	107.84 ± 17.95
F P			0.946 p>0.05	0.289 P > 0.05	1.485 P > 0.05	2.375 P > 0.05	1.050 P > 0.05

was determined that the differences between MSRS and DAS total point averages according to employment status of women, age group, educational level and profession of their spouses, type of their families, income level, and the length of their marriage were not statistically significant (P > 0.05; Table 1). Besides the fact that results obtained in studies vary, Erdem (35) found that the difference between sociodemographic characteristics and menopausal symptoms was not significant, although Ünsaldı (36) found significant relations between the ages of women, their educational levels, their working situations, and menopausal symptoms. Bulut (37) and Mustafa et al. (38) stated in their study that the difference between DAS point averages according to relevant characteristic was not significant.

Table 5. The average subscales of the MSRS and DAS, and the average overall scores of both scales.

Scales (n = 263)		Mean ± SD
MSRS	Somatovegetative symptoms	4.19 ± 2.08
	Psychological symptoms	13.12 ± 4.59
	Urogenital symptoms	5.35 ± 3.09
	Total	22.67 ± 8.06
DAS	Dyadic consensus	50.51 ± 7.84
	Dyadic satisfaction	36.69 ± 7.62
	Affective expression	8.21 ± 2.11
	Dyadic cohesion	10.51 ± 4.72
	Total	105.93 ± 16.60

While the difference between MSRS total point averages according to the women's marriage age was found to be statistically significant (P < 0.05), the difference between DAS total point averages was not significant (P > 0.05). It was determined that women whose age was 20 and over according to MSRS total point averages experienced fewer menopausal symptoms. According to DAS total point averages, age at the time of marriage did not affect adjustment in marriage (Table 1).

Similar to the findings of our study, Çoban et al. (24) determined in their study that women who married at the age of 21 or over had fewer menopausal complaints.

When MSRS and DAS total point averages according to the obstetric characteristics of the women were compared (Table 2), the difference between MSRS total point averages according to the total number of pregnancies was found to be statistically significant (P < 0.05), but the difference between DAS total point averages according to the total number of pregnancies was not statistically significant (P > 0.05). According to this, it was seen that women who had 6 or more pregnancies had more menopausal complaints. Similarly, Çoban et al. (24) determined in their study that women who had 4 or more pregnancies had more menopausal complaints. Yeşilmurat (39) found in his study that women who had 3 or more pregnancies had more menopausal complaints.

There was a statistically significant difference between the mean score of subscales and the overall mean score of the MSRS based on how women entered menopause (P < 0.05, P < 0.001; Table 3). Women who entered menopause as a result of surgery suffered more from somatovegetative, psychological, and urogenital symptoms. According to the

Table 6. The relationship between subscales and the overall score mean of the MSRS and the DAS.

Scales (n = 263)			DAS				
			Dyadic consensus	Dyadic satisfaction	Affective expression	Dyadic cohesion	Total
MSRS	Somatovegetative symptoms	r	–0.129	0.038	–0.193	–0.129	–0.105
		P	<0.05	<0.05	<0.001	<0.05	> 0.05
	Psychological symptoms	r	–0.307	–0.147	–0.388	–0.213	–0.105
		P	<0.001	<0.05	<0.001	<0.001	>0.05
	Urogenital symptoms	r	–0.377	–0.134	–0.497	–0.272	–0.381
		P	<0.001	<0.05	<0.001	<0.001	<0.001
	Total	r	–0.353	–0.126	–0.462	–0.259	–0.357
		P	<0.001	<0.05	<0.001	<0.001	<0.001

r = Pearson correlation analyses.

literature, menopausal symptoms occurring as a result of surgery are more severe in comparison to menopausal symptoms suffered as a result of natural menopause. This is because in natural menopause the follicles gradually stop functioning, enabling the body to slowly adapt to the situation. In contrast, menopause as a result of surgery is unexpected and requires the body to immediately adapt to the situation (1).

No statistically significant difference was identified between the subscale score mean and the overall score mean obtained from the MSRS based on climacterium stages (P > 0.05; Table 3). However, Özgür (40) and Olaolorun and Lawoyin (41) reported that there was a statistically significant difference between the score means of subscales and the overall score mean of the MSRS based on the climacteric stages that the women were going through. Related studies indicated that menopausal complaints are suffered more commonly during premenopause and perimenopause (42–44).

As indicated in Table 4, the mean score of subscale scores, excluding 'dyadic satisfaction,' and the overall mean scores obtained from the DAS based on how women entered the menopause showed a statistically significant (P < 0.001, P < 0.05) difference between groups. The fact that women who enter menopause as a result of surgery have a higher score in comparison to women that enter menopause naturally indicates that the level of marital adaptation is better in the former group of women. Bulut (37) reported the overall mean DAS score of women that had undergone a hysterectomy as 111.37 ± 8.39; 49.1% of women stated that their spouses were more understanding and more attentive after the hysterectomy. According to these results, the social support that the woman receives from her spouse could have a positive effect on marital adaptation; therefore, the difference between the mean score of subscales and the overall mean score obtained from the DAS based on how women entered menopause may be significant.

There was no statistically significant difference between the score mean of subscales and the overall score means obtained from the DAS based on the climacterium stages the women were going through (P > 0.05; Table 4). The reason for this result could be that as the severity of menopausal complaints experienced during each stage are at the same level, so are their reflections on marital adaptation.

According to the comparison between the mean scores that women achieved on the subscales of the MSRS and the DAS and the total mean scores from both scales (Table 5), the mean score of the somatovegetative symptoms subscale of women was 4.19 ± 2.08 (the highest score for this subscale is 8). The mean score of the psychological symptoms subscale was 13.12 ± 4.59, out of a possible 24. The mean score of the urogenital symptoms subscale was 5.35 ± 3.09, out of a possible 12. The mean score of the MSRS was 22.67 ± 8.06, out of a possible 44 (32). The higher overall score of the MSRS indicates that complaints suffered were more severe. Based on these results, it can be stated that, on average, all the women in this study experienced menopausal symptoms to a 'moderate' degree ('moderate' was determined as half of the maximum total achieved of 44). In their study, Çoban et al. (24) identified that the total mean score of the MSRS for their participants was 18.0 ± 8.7, and none experienced significant menopausal complaints. Özgür (40) identified the total mean score of MSRS of women as 15.32 ± 8.14, and also reported that the women suffered from menopausal complaints to a moderate degree. These results are similar to the results of our study. In contrast, Olaolorun and Lawoyin (41) determined that urban women suffered from menopausal

complaints to a high degree. The studies conducted determined that menopausal complaints are affected by the attitudes of women towards menopause (24,45–48). In their studies that were conducted in Turkey, Bayraktar and Uçanok (49), Akkuzu et al. (50), and Çoban et al. (24) indicated that women have a positive attitude towards menopause. However, the fact that the menopausal complaints of women in this study are not low-level might have been caused by the fact that the study was performed on women who applied to the hospital due to menopausal complaints; it could be asserted that the fact that it is not high-level could be caused by the general positive attitudes of women towards menopause.

As shown in Table 5, the total mean score of DAS was 105.93 ± 16.60 (the maximum score is 151) (34). A high overall score indicates that the individual has a better level of adjustment in her relationship or marriage. The results from this study indicate that these women have a good level of consensus, satisfaction, and affective expression and a moderate level of cohesion with their partners or spouses – they have an overall good level of marital adaptation. Our results are similar to those of Ünsaldı (36), who identified the overall mean score of DAS for women as 104.5 ± 20.7.

According to the relationship between the scores of subscales and the overall scores of the MSRS and the DAS (Table 6), there was a statistically significant inverse relationship between the 2 scales (r: –0.357, P < 0.001). Previously conducted studies indicated that there is an inverse relationship between the marital adaptation and menopausal symptoms of women experiencing a climacteric period, and that those with a high level of marital adaptation suffer less from menopausal complaints (13,24,44). It is no surprise that marital adaptation deteriorates in tandem with the increase in menopausal symptoms, because problems experienced during menopause impair the quality of life of women and also negatively affect marital relationships. Studies showed that women who achieve satisfaction in their marriages overcome the menopausal period more easily (12,20,23,24). These results indicate that a supportive husband and a healthy, reliable, and happy relationship make an important contribution to a woman's ability to cope with her menopausal problems. It could be asserted that when the husband still finds the woman attractive, understands her sexual unwillingness, gives confidence to her, or behaves in an indulgent way regarding the possible inability to do housework, this enables the woman to tolerate the problems experienced and feel more able to cope with them.

The purpose of this study was to determine the association between menopausal complaints experienced by women going through menopause and their level of marital adaptation; our study concluded that as the women's MSRS score increased, their DAS score decreased. In effect, marital adjustment deteriorates as menopausal symptoms increase.

Based on the results of this study and the fact that there are very few menopause clinics available in Turkey, the following general suggestions are made in order to improve the outcome for women during the menopause:

- informing women entering the menopause and their spouses about changes that may occur during this period;
- providing women experiencing menopause with training, consultancy, and support in order to help reduce the severity of menopausal symptoms, reduce adverse effects, and help women to cope;
- examining women going through menopause psychologically as well as physically and referring them to a psychologist or psychiatrist if necessary;
- opening easily accessible units that provide women experiencing menopause and their spouses with constant training and counseling; and
- improving opportunities available in current units and increasing their functions, as trained and experienced midwives and nurses play an important role in these units.

The limitations of the study were the small size of the sample group, the use of a convenient sampling method, the use of a cross-sectional study design, and the fact that 85% of the participants were primary school graduates. The results of this study can therefore only be generalized for women that fall within the context of the study.

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References

1. Taşkın L. Doğum ve Kadın Sağlığı Hemşireliği. Ankara: Sistem Ofset; 2009 (book in Turkish).
2. WHO Scientific Group. Research on the Menopause in the 1990s. WHO Technical Report Series 866. Geneva: World Health Organization; 1996.
3. Hidayet NM, Sharaf SA, Aref TA, Tawfik TA, Moubarak II. Correlates of age at natural menopause: a community-based study in Alexandria. EMHJ 1999; 5: 307–319.
4. Kazerooni T, Talei AR, Sadeghi-Hassanabadi A, Arasteh MM, Saalabian J. Reproductive behaviour in women in Shiraz, Islamic Republic of Iran. EMHJ 2000; 6: 517–521.

5. Arslan H, Gürkan CÖ, Yiğit FE, Ekşi Z. Menopoz dönemindeki kadınların cinsel yaşamlarının değerlendirilmesi. Sağlık ve Toplum Derg 2004; 14: 67–74 (article in Turkish).

6. Güney N. Park sağlık ocağı bölgesinde 35 yaş ve üzeri kadınlarda menopoz yaşı ve perimenopozal semptomların tespiti. MSc, Ankara University, Ankara, 2006 (in Turkish).

7. Hotun Şahin N, Coşkun A. The menopausal age, related factors and climacteric, complaints in Turkish women. Revista Referencia 2007; 4: 91–99.

8. Hacettepe Üniversitesi Nüfus Etütleri Enstitüsü. 2008 Türkiye Nüfus ve Sağlık Araştırması. Ankara: Hacettepe Üniversitesi Nüfus Etütleri Enstitüsü, Sağlık Bakanlığı Ana Çocuk Sağlığı ve Aile Planlaması Genel Müdürlüğü, Başbakanlık Devlet Planlama Teşkilatı Müsteşarlığı, and TÜBİTAK; 2009 (report in Turkish).

9. Turkish Statistical Institute. Statistics. Ankara: TÜİK. Available at www.tuik.gov.tr/Gosterge.do?id=3714&sayfa=giris&metod=IlgiliGosterge, 22.06.2010 (in Turkish).

10. Kadayıfçı O. Klimakterium, Premenopoz, Menopoz, Postmenopoz, Senium, Ikinci Bahar. İstanbul: Nobel Tıp kitapevleri; 2006 (book in Turkish).

11. Shaver JL. The interface of depression, sleep, and vasomotor symptoms. Menopause 2009; 16: 626–629.

12. Tot Ş. Menopozun psikiyatrik yönleri. Anadolu Psikiyatri Derg 2004; 5: 114–119 (article in Turkish).

13. Yurdakul M, Eker A, Kaya D. Menopozal dönemlerdeki kadınların yaşam kalitesinin değerlendirilmesi. Fırat Üniversitesi Sağ Bil Derg 2007; 21: 187–193 (article in Turkish).

14. Erbek E, Beştepe E, Akar H, Eradamlar N, Alpkan RL. Evlilik uyumu. Düşünen Adam Psikiyatri ve Nörolojik Bilimler Derg 2005; 18: 39–47 (article in Turkish).

15. Erbek E, Beştepe E, Akar H, Alpkan RL, Eradamlar N. Cinsellik ve çift uyumu: üç gurup evli çiftte karşılaştırmalı bir çalışma. Düşünen Adam Psikiyatri ve Nörolojik Bilimler Derg 2005; 18: 72–81 (article in Turkish).

16. Tutarel-Kışlak Ş, Çabukça F. Empati ve demografik değişkenlerin evlilik uyumu ile ilişkisi. Aile ve Toplum Eğitim, Kültür ve Araştırma Derg 2002; 5: 35–41 (article in Turkish).

17. Tutarel-Kışlak Ş, Çavuşoğlu Ş. Evlilik uyumu, bağlanma biçimleri, yüklemeler ve benlik saygısı arasındaki ilişkiler. Aile ve Toplum Eğitim, Kültür ve Araştırma Derg 2006; 9: 61–69 (article in Turkish).

18. Ensrud KE, Stone KL, Blackwell TL, Sawaya GF, Tagliaferri M, Diem SJ, Grady D. Frequency and severity of hot flashes and sleep disturbance in postmenopausal women with hot flashes. Menopause 2009; 16: 286–292.

19. Warren MP. Menopausal hot flashes: how long do they really last? Menopause 2009; 16: 427.

20. Varma GS, Karadağ F, Oğuzhanoğlu NK, Özdel O, Kökten S. Menopause: the relationship between climacteric symptoms and sexual satisfaction. New Symposium 2006; 44: 182–188.

21. Amore M, Donato PD, Berti A, Palareti A, Chirico C, Papalini A, Zucchini S. Sexual and psychological symptoms in the climacteric years. Maturitas 2006; 56: 303–311.

22. Graham JG, Kaczorowski J, Skelly J, Finkelstein M. Urinary incontinence: common problem among women over 45. Can Fam Physician 2005; 51: 84–85.

23. Nehir S, Çoban A, Demirci H, Özbaşaran F, Inceboz Ü. Menopozal belirtilerin ve evlilik uyumunun yaşam kalitesi üzerine etkisi. Cumhuriyet Tıp Derg 2009; 31: 15–21 (article in Turkish).

24. Çoban A, Nehir S, Demirci H, Özbaşaran F, Inceboz Ü. Klimakterik dönemdeki evli kadınların eş uyumları ve menopoza ilişkin tutumlarının menopozal yakınmalar üzerine etkisi. Fırat Üniversitesi Sağ Bil Derg 2008; 22: 343–349 (article in Turkish).

25. Sağlık Bakanlığı. Herkese Sağlık-Türkiye'nin Hedef ve Stratejileri (Sağlık 21). Ankara: Barok Matbaacılık; 2001 (book in Turkish).

26. Karasar N. Bilimsel Araştırma Yöntemi. Ankara: Nobel Tıp Kitapevleri; 2008 (book in Turkish).

27. Cohen J. Statistical Power Analysis for the Behavioural Sciences. 2nd ed. Hillsdale, NJ, USA: Erlbaum; 1988.

28. Scheineder HP, Heinemann LAJ, Rosemeier HP, Potthoff P, Behre HM. The Menopause Rating Scale (MRS) comparison with Kupperman index and Quality of Life Scale SF-36. Climacteric 2000; 3: 50–58.

29. Scheineder HP, Heinemann LAJ, Rosemeier HP, Potthoff P, Behre HM. The Menopause Rating Scale (MRS) reliability of scores of menopausal complaints. Climacteric 2000; 3: 59–64.

30. Potthoff P, Heinemann LA, Schneider HP, Rosemeier HP, Hauser G. The Menopause Rating Scale (MRS II): methodological standardization in the German population. Zentralbl Gynakol 2000; 122: 280–286.

31. Schneider HPG, Heinemann LAJ, Thiele K. The Menopause Rating Scale (MRS). Cultural and linguistic translation into English. Life Med Sci Online 2002; 3: DOI 101072/LO0305326.

32. Gürkan CÖ. The reliability and validity of the Turkish version of the Menopause Symptom Rating Scale. Nurse Forum 2005; May–June: 30–35.

33. Spanier GB. Measuring dyadic adjustment: a new scale for assessing the quality of marriage and the similar dyads. J Marriage Fam 1976; 38: 15–28.

34. Fışıloğlu H, Demir A. Applicability of the dyadic adjustment scale for measurement of marital quality with Turkish couples. Eur J Psychol Assess 2000; 16: 214–218.

35. Erdem Ö. Menopoz dönemindeki kadınların yaşadıkları sorunlar ve baş etme yolları. MSc, Hacettepe Universityi, Ankara, 2006 (in Turkish).

36. Ünsaldı R. Evlilik uyumunun çeşitli demografik değişkenlerin menopoza ilişkin belirtilerle ilişkisinin incelenmesi. MSc, Hacettepe University, Ankara, 2004 (in Turkish).

37. Bulut S. Histerektomi olan kadınlarda eşler arası uyumun incelenmesi. MSc, Ege University, İzmir, 2006 (in Turkish).

38. Mustafa SS, Looper KJ, Purden M, Zelkowitz P, Baron M. Better marital adjustment is associated with lower disease activity in early inflammatory arthritis. Turk J Med Sci 2012; 42: 1180–1185.

39. Yeşilmurat N. Menopoz dönemindeki kadınların menopoz ve hormone replesman tedavisine ilişkin bilgilerinin ve yakınmalarının değerlendirilmesi. MSc, Cumhuriyet University, Sivas, 2001 (in Turkish).

40. Özgür N. Klimakteriyum dönemindeki kadınların yaşadıkları menopoz semptomları ve başa çıkma yolları. MSc, Marmara University, İstanbul, 2007 (in Turkish).

41. Olaolorun FM, Lawoyin TO. Experience of menopausal symptoms by women in an urban community in Ibadan, Nigeria. Menopause 2009; 16: 822–830.

42. Chim H, Tan BH, Ang CC, Chew EMD, Chong YS, Mei S. The prevalence of menopausal symptoms in a community in Singapore. Maturitas 2002; 41: 275–282.

43. Pan HA, Wu MH, Hsu CC, Yao BL, Huang KE. The perception of menopause among women in Taiwan. Maturitas 2002; 41: 269–274.

44. Bardel A, Wallender MA, Svardsudd K. Hormone replacement therapy and symptom reporting in menopausal women. Maturitas 2002; 41: 7–15.

45. Bloch A. Self-awareness during the menopause. Maturitas 2002; 30: 61–68.

46. Tortumluoğlu G, Erci B. Klimakterik dönemdeki kadınların sağlık davranışları ve menopoza ilişkin tutumlarının menopozal yakınmalar üzerine etkisi. Atatürk Üniversitesi Hemşirelik Yüksekokulu Derg 2003; 6: 77–90 (article in Turkish).

47. Shea JL. Chinese women's symptoms: relation to menopause, age and related attitudes. Climacteric 2006; 9: 30–39.

48. Ayers B, Forshaw M, Hunter MS. The impact of attitudes towards the menopause on women's symptom experience: a systematic review. Maturitas 2010; 65: 28–36.

49. Bayraktar R, Uçanok Z. Menopoza ilişkin yaklaşımların ve kültürlerarası çalışmaların gözden geçirilmesi. Aile ve Toplum, Eğitim, Kültür ve Araştırma Derg 2002; 5: 5–12 (article in Turkish).

50. Akkuzu G, Örsal O, Keçialan R. Women's attitudes towards menopause and influencing factors. Turk J Med Sci 2009; 29: 666–674.