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Research / Araştırma

Premature and Normal Menopause: An Evaluation in Terms of Stress, Marital Adjustment and Sex Roles

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ABSTRACT

Premature and normal menopause: an evaluation in terms of stress, marital adjustment and sex roles

Objective: Middle age period brings about particular difficulties for some women, because of the physiological and psychological changes. The physiological changes occuring in this period is called andropause for males and menopause for females. While it starts about 40-50 years of age in general, it might be at an earlier stage of life for some women which is called premature menopause, indicating the climacterium. The main aim of this study is to compare two groups of women with premature menopause and normal menopause in terms of stress reactions, ways of coping, marital adjustment, and sex roles.

Method: Data were collected from a total of 224 women, 82 of which had premature menopause (under age 40), and 142 had normal menopause (above age 40). The participants were given Demographic Information Form (DIF), Stress Reactions Scale (SRS), Ways of Coping Inventory (WCI), Marital Adjustment Scale (MAS), and Bem Sex Roles Inventory (BSRI) to obtain data.

Results: The t-test analysis has revealed that the premature menopause group had higher scores in stress reactions, lower scores in self confident and optimistic ways of coping with stress, and lower scores in marital adjustment, compared to the normal menopause group. The predictive variables for both groups were found to be "degree of agreement in marriage", "helpless style", and "searching for social support" by regression analysis. The "masculine sex role" was the predictor of only the premature menopause group.

Discussion: When we review the related literature, we see that most of the studies are about women who entered menopause around 40 years of age and the problems they face in the process. There is very little research on women who enter menopause earlier (premature menopause). For this reason, it is felt that the current study will add to our knowledge on the premature manapause phenomenon, which challenges women physically and psychologically. We feel it is important to raise awareness in women on the issue in order to prevent and alleviate stress-related problems. We also feel the results of the study might be important in the areas of psychotheraphy and psychological counselling. For example during psychological counselling or psychotheraphy for premature menopause, it might be important to measure the sex roles, marital satisfaction levels and the levels of satisfaction of these women with their close interpersonal relationships, and try to design interventions accordingly. Additionally it might be helpful to teach new coping strategies to manage their stress levels.

Keywords: Marital adjustment, menopause, premature menopause, sex roles, stress

ÖZET

Erken ve normal menopoz: stres, evlilik uyumu ve cinsiyet rolleri açısından bir karşılaştırma

Amaç: Orta yaş dönemi, beraberinde getirdiği bazı fizyolojik ve psikolojik değişimler sebebiyle, bir grup kadın için bazı zorlukları içermektedir. Bu dönemde erkeklerde ortaya çıkan fizyolojik değişim andropoz dönemi, kadınlarda ortaya çıkan fizyolojik değişim ise menopoz dönemi olarak adlandırılmaktadır. Ortalama 40-50 yaşlar arasında başlayan bu dönem bazı kadınlarda daha erken yaşlarda başlamaktadır. Bu durum "erken menopoz" olarak adlandırılmakta ve 40 yaştan önce ovaryumun yumurtalıklarla ilgili işlevini yitirmesi (adetten kesilmek) olarak tanımlanmaktadır. Bu çalışmanın amacı, menopoza erken girmiş ve menopoza normal yaş sınırları içerisinde girmiş bir grup kadını stres belirtileri, stresle başa çıkma tarzları, evlilik uyumu ve cinsiyet rolleri açısından karşılaştırmaktır.

Yöntem: Menopoza erken girmiş (40 yaş altı) 82 ve menopoza normal yaş sınırları içinde girmiş (40 yaş üstü) 142 olmak üzere toplam 224 kadın örneklem grubunu oluşturmuştur. Katılımcılara Demografik Bilgi Formu, Stres Belirtileri Ölçeği (SBÖ), Stresle Başa Çıkma Tarzları Ölçeği (SBÇTÖ), Evlilikte Uyum Ölçeği (EUÖ) ve Bem Cinsiyet Rolü Envanteri (BCRE) uygulanmıştır.

Bulgular: Erken menopoz ve normal menopoz grubunun ilgili değişkenler açısından karşılaştırıldığı t-testi analizi sonucunda, erken menopoza girmiş kadınların normal yaş sınırında menopoza girmiş kadınlara oranla daha yüksek stres belirtileri sergilediği, stresle başa çıkma tarzlarından kendine güvenli ve iyimser yaklaşımları daha az kullandıkları ve daha düşük evlilik uyumu puanı aldıkları saptanmıştır. Yapılan regresyon analizi sonucunda, her iki grupta da "evlilikteki anlaşma derecesi", "çaresiz yaklaşım" ve "sosyal destek arama" stres belirtilerini yordayan ortak değişkenler olarak belirlenmiştir. Bunların dışında, "erkeksi cinsiyet rolü" yalnızca erken menopoz grubunda yordayıcı değişken olarak karşımıza çıkmaktadır.

Tartışma: İlgili literatür incelendiğinde, yapılan araştırmaların çoğunlukla normal yaşlarda menopoza girmiş kadınlar ve bu dönem içinde yaşadıkları problemler üzerine odaklandığı, erken menopoza ilişkin ise çok az sayıda çalışmanın bulunduğu gözlenmektedir. Bu nedenle, mevcut çalışma sonucunda elde edilen bulguların, kadınları hem fiziksel hem ruhsal açıdan oldukça zorlayan erken menopoz olgusuna dikkat çekilmesinde az da olsa katkısı olabileceği söylenilebilir. Menopoz döneminde yaşanan stresin belirlenmesi, önlenmesi ve özellikle de bireylerin bu konuda bilinçlendirilmesi ruh sağlığı açısından oldukça önemlidir. Bu nedenle elde edilen bulguların psikolojik tedavi ve danışmanlık aşamalarında kullanılabilir bulgular olduğu düşünülmektedir. Örneğin, psikolojik tedavi/danışmanlık esnasında, özellikle erken menopoz dönemindeki kadınların benimsemiş oldukları cinsiyet rollerinin soruşturulması, evlilik doyumlarına/ilişkilerine yönelik durumların gözden kaçırılmaması gerektiğine ilişkin ipuçları bu çalışma ile elde edilmiştir. Ayrıca menopoz döneminde yaşanan stres belirtilerini azaltmak üzere, kadınların stresle başa çıkma becerilerinin geliştirilmesinin ne denli önemli olduğu görülmektedir.

Anahtar kelimeler: Evlilik uyumu, menopoz, erken menopoz, cinsiyet rolleri, stres

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INTRODUCTION

For certain adults, middle age with its physiological and psychological changes involves a number of problems. In women in particular, a process known as menopause, starting between the ages of 40 and 50, brings about physiological changes leading to the end of fertility (1).

The global average age at menopause is 51 years, but this age is lower in developing countries compared to developed countries. While the age range in developed countries is 49.3-51.4 years, the range in developing countries is reported to be 43.5-49.4. In Turkey, the mean age at menopause is 47 years (2).

In some women, the premenopausal process and menopause start at an earlier age than in others. This condition is known as "premature menopause", defined by the ovaries' loss of [ovarian] function (climacteric) (3). There is no agreement on the causes for early or late menopause, though being unmarried, nulliparous or oligoparous (4), and smoking, low socioeconomic level, and being employed (5) have been mentioned as risk factors for premature menopause.

In the literature review, other than demographic variables, results suggesting a relation of mood factors such as depression and stress (6-10) and quality of life (11,12) with the age at menopause were conspicuous. Another variable thought to be related to menopause is marital adjustment. Studies showed that women in well-adjusted marital relationships had fewer menopausal complaints (13-15). A study with three groups of women before, during, and after the onset of menopause suggested that pre- and menopausal women in unhappy marital relationships showed a more negative mood than women in happy relationships (16).

Some studies show a relation between marital adjustment and gender roles. In society, individuals are taught the expected "masculine" and "feminine" feelings and behaviors as part of their gender role from the beginning of their lives (17-19). Some studies point out that the concept of the male as breadwinner and the female home maker looking after the children is receding and marital adjustment is thus changing (20,21). However, no study was found that analyzed relations between menopause and gender roles.

Study Aim

While a number of studies on this topic have been undertaken over the last years, no study assessed menopause from the perspective of stress, marital adjustment, and gender roles. From this vantage point, the current study seeks to answer the following two questions:

1. Are there any significant differences regarding signs of stress, ways of coping with stress, marital adjustment, and gender roles between women with premature menopause and those entering menopause in the normal age range?
2. Which variables can predict stress symptoms in prematurely menopausal women and those with a normal age at menopause? Is there a difference between the two groups regarding these variables?

METHOD

The study sample consisted of women presenting at the Ministry of Health's Etlik Zubeyde Hanim Obstetrics and Gynecology Training and Research Hospital and to the Dr. Zekai Tahir Burak Women's Health Training and Research Hospital with menopausal complaints (vasomotor symptoms, sleeping problems, reduced sexuality, painful sexual relation, weight gain, etc.) and were diagnosed by the physicians as undergoing either normal or premature menopause. Of the 224 participants in total, 82 women entered menopause prematurely (before the age of 40) and 142 women in the normal age range (over the age of 40). Neither of the groups included cases with surgical menopause. Women entering menopause due to surgical interventions were excluded from the sample because of potentially confounding variables (cancer, other psychological and physiological effects of the operation, etc.). None of the women with normal age at menopause were taking HRT (Hormone Replacement Therapy) or antidepressants, antipsychotics, anxiolytics, lithium, or epilepsy drugs, while 8.5% (n=7) of the prematurely menopausal women were using HRT only. Detailed demographic and menopause-related data for the sample are shown in Table 1.

Table 1: Demographic variables of the sample

Demographic Variables	Premature Menopause		Normal Menopause	
	n	%	n	%
Age				
Range 34-45	20	24.3	-	-
Range 46-55	41	50.1	101	71.3
Range 56-60	21	25.6	41	28.7
Educational status				
Literacy-primary school	39	47.5	46	32.4
Middle school	11	13.4	11	7.7
High school diploma	14	17.1	37	26.1
University degree – postgraduate	18	21.9	48	33.8
Employment status				
Working	23	28.0	50	35.2
Not working	44	53.7	51	35.9
Retired	15	18.3	41	28.9
Marital status				
Married	65	79.3	109	76.8
Single	3	3.7	3	2.1
Widowed	14	17.1	30	21.1
Number of children				
1-2 children	49	59.7	100	70.4
3-4 children	22	26.8	28	19.7
5-8 children	4	4.9	5	3.5
No children	7	8.5	9	6.4
Mean age	49.99		53.38	
Standard deviation	6.40		3.93	
Age range	34-60		46-60	
Mean age at menopause	37.14		47.70	
Standard deviation	2.16		3.70	
Age range	30-39		41-56	

Procedure

Before the study, approval from Ankara University's Ethics Committee was received (deliberation no. 16-343). All participants were requested to complete an Informed Voluntary Consent Form. The scales were completed under the supervision of the researcher directly on the premises of the relevant policlinics.

Instruments for Data Collection

Demographic Data Form (DDF): Prepared by the researcher to record personal information such as age of the participant, educational level, number of children, and age at menopause. It also included a question to establish to what degree spouses were supporting women in their domestic work. The answer to this question was scored on a Likert-type scale between 1 (not at all) and 5 (very much).

Stress Reactions Scale (SRS): A Likert-type scale with scores between 1 and 5 points (22), asking participants about signs of stress they experienced and the degree of discomfort caused during the past six months. It consists of 7 sections concerning "muscular system", "parasympathetic nervous system", "sympathetic nervous system", "emotional system", "cognitive system", "endocrine system", and "immune system". There is sufficient evidence for the validity and reliability of the scale (23). Cronbach's alpha reliability coefficients in our study ranged from 0.69 (endocrine system) to 0.91 (emotional system).

Stress Coping Style Inventory (SCSI): A 4-point Likert-type scale to measure coping measures of persons under stress, consisting of five factors: "optimistic approach", "self-confident approach", "helpless approach", "resigned approach", and "seeking social support". There are studies demonstrating

validity and reliability (24). Cronbach's alpha for the scale ranged between 0.61 (resigned approach) and 0.81 (self-confident approach) in our study.

Marital Adjustment Test (MAT): A 15-item scale developed to assess characteristics of marriage. High scores show an elevated degree of adjustment in the marriage (25). Three dimensions "happiness", "relation style", and "degree of agreement" are being evaluated (26). In our study, Cronbach's alpha reliability coefficient for the total score was 0.86.

Bem Sex Roles Inventory (BSRI): Instrument designed to identify people's internalized gender roles, consisting of a 40-item Likert-type scale (18). Studies made with the Turkish form of the scale have shown that femininity and masculinity are two basic constructs (27). There is sufficient evidence for the validity and reliability of the scale. In our study, Cronbach's alpha reliability coefficient was 0.82 for masculinity and 0.78 for femininity.

RESULTS

As can be seen in Table 1, women diagnosed with premature menopause who at the time of this study had passed the age of 40 by a significant margin were also included in the sample. Therefore, is became necessary to test the possible significance of the age factor on the other dependent variables. Thus, first an age-controlled one-way multifactorial variance analysis (MANCOVA) was carried out. The resulting Wilks' lambda value (Wilks' λ=0.88, $F_{(1,162)}$=1.14, p>0.05) indicated that age did not constitute a significant difference. Therefore, in a next step the scores for both diagnostic groups (premature and normal menopause) were compared using t-test. Results are found in Table 2.

As can be seen in table 2, total score for stress signs (t=2.80, p<0.001) and muscular (t=2.81, p<0.001), parasympathetic (t=2.39, p<0.05), emotional (t=2.91, p<0.001), cognitive (t=2.41, p<0.05), endocrine (t=2.74, p<0.001), and immune system (t=2.57, p<0.05) scores for women with premature menopause are significantly higher than in women with normal age at menopause. In addition, scores for self-confident approach (t=2.18, p<0.05) and optimistic approach (t=2.60, p<0.05) in women reaching menopause in the normal age range were higher than in women with early menopause. Furthermore, it was found that women with premature menopause had lower total marital adjustment scores (t=2.26, p<0.001) and relation type adjustment scores (t=3.27, p<0.001). No significant difference between the two groups was found regarding gender roles.

Correlation Analyses

To evaluate relations between variables in the premature and normal menopause groups, correlation analyses were carried out. Results are presented in Table 3.

Table 2: Comparison of Scores on Each Scale for Women with Early and Normal Menopause

	Early Menopause (n=82)		Normal Menopause (n=142)		
	Mean	SD	Mean	SD	t
Stress Audit Scale (Total score)	141.39	42.29	125.76	35.24	2.80**
Muscular system	21.05	6.42	18.55	6.27	2.81**
Parasympathetic system	20.84	7.58	18.52	5.88	2.39*
Emotional system	22.10	9.35	18.47	8.22	2.91**
Cognitive system	22.99	8.17	20.39	6.99	2.41*
Endocrine system	18.85	6.30	16.61	5.03	2.74**
Immune system	17.29	6.71	15.08	5.25	2.57*
Stress Coping Style Inventory					
Self-confident approach	13.65	4.13	14.88	3.95	2.18*
Optimistic approach	8.57	3.12	9.70	3.01	2.60*
Marital Adjustment Scale (Total score)	38.51	11.60	42.52	10.86	2.26**
Relation type	7.44	3.17	9.00	2.86	3.27**

*p<0.05, **p<0.01

Table 3: Total scores for stress symptoms and correlation coefficients between subscales and other variables

	1	2	3	4	5	6	7	8
Education status	-0.04	0.07	-0.08	0.03	-0.15	-0.03	0.02	0.01
	(-0.05)	(-0.05)	(-0.03)	(-0.04)	-0.01	(-0.10)	(-0.11)	-0.02
Partner support	-0.06	-0.06	-0.1	-0.02	0.04	-0.03	0.02	-0.09
	(-0.14)	(-0.01)	(-0.03)	(-0.04)	(-0.10)	(-0.22*)	(-0.11)	(-0.16)
Happiness	-0.25*	-0.11	-0.31*	-0.21	-0.23	-0.19	-0.07	-0.11
	(-0.21*)	(-0.08)	(-0.09)	(-0.09)	(-0.26**)	(-0.26**)	(-0.02)	(-0.27**)
Degree of agreement	-0.48***	-0.35**	-0.54***	-0.31*	-0.34*	-0.32*	-0.34*	-0.38**
	(-0.28***)	(-0.19)	(-0.10)	(-0.13)	(-0.43***)	(-0.29**)	(-0.01)	(-0.27**)
Relation type	-0.40**	-0.15	-0.40**	-0.24	-0.41**	-0.36**	-0.21	-0.30*
	(-0.23*)	(-0.11)	(-0.12)	(-0.07)	(-0.33**)	(-0.26**)	(-0.03)	(-0.29**)
Feminine sex role	-0.04	-0.1	-0.07	-0.02	0.05	-0.02	0.02	-0.05
	(-0.01)	-0.05	(-0.04)	(-0.01)	(-0.03)	-0.05	(-0.03)	-0.03
Masculine sex role	0.07	0.12	0.08	0.16	-0.03	0.04	0.06	-0.01
	-0.01	-0.07	-0.02	-0.04	-0.01	(-0.07)	-0.05	(-0.01)
Self-confident approach	-0.15	-0.12	-0.17	-0.05	-0.23*	-0.27*	0.02	0.04
	(-0.32***)	(-0.21*)	(-0.11)	(-0.19*)	(-0.35***)	(-0.43***)	-0.1	(-0.25**)
Optimistic approach	-0.14	-0.15	-0.18	-0.08	-0.21	-0.16	0.07	-0.08
	(-0.22*)	(-0.14)	(-0.07)	(-0.09)	(-0.34***)	(-0.30***)	(-0.02)	(-0.15)
Helpless approach	0.50**	0.35**	0.38**	0.30**	0.55***	0.56***	0.35**	0.30**
	(0.46***)	(0.28**)	(0.26**)	(0.28**)	(0.50***)	(0.53***)	(0.23***)	(0.33***)
Resigned approach	0.21	0.18	0.06	0.15	0.30**	0.27**	0.22*	0.08
	(0.22*)	(0.19*)	-0.08	(0.11)	(0.21*)	(0.24**)	-0.13	(0.22*)
Social support	0.13	0.19	0.01	0.13	0.07	0.1	0.12	0.03
	(-0.14)	(-0.16)	(-0.07)	(-0.14)	(-0.09)	(-0.09)	(-0.14)	-0.05

Note: Values in the first row refer to premature menopause, those in the second row (in brackets) to the normal menopause group.*p< 0.05, **p<0.01, ***p<0.001
1. Stress Audit Scale Score, 2. Muscular System, 3. Parasympathetic System, 4. Sympathetic System, 5. Emotional System, 6. Cognitive System, 7. Endocrine System, 8. Immune System

As can be seen in Table 3, in the premature menopause group, correlation coefficients between scales range from 0.50 (p<0.01) to -0.40 (p<0.01), and in the normal menopause group, they range between 0.05 (p<0.01) and -0.20 (p<0.05).

Regression Analysis

In order to establish the variables predicting stress in the premature and normal menopause group, sequential hierarchical regression analysis was carried out. In the first step, educational level, employment status, partner support, and number of children were included in the equation, in the second step scores from the subscales of the MAT (happiness, degree of understanding, and relation style), in the third stage gender roles (feminine and masculine), and in the last step the subscores of the SCSI (self-confident approach, optimistic approach, helpless approach, resigned approach, and seeking social support). Results are shown in Table 4.

As is seen in Table 4, for the premature menopause group, the degree of agreement in marriage was entered first into the equation and explained 21% of the variance (F=16.65, SD=1-58, p<0.001). In the second place, the subdimension masculine sex role (F=11.54, SD=2-57, p<0.001) and in the third place helpless approach (F=9.49, SD=3-56, p<0.001) were entered, explaining 30% of the total variance together with the other variables. Last entry was the social support dimension (F=8.96, SD=4-55, p<0.001), adding up to an explanation for 35% of the total variance. For the beta values, it was conspicuous that the highest predictor was degree of agreement (Beta=-0.44).

For the normal menopause group, the first dimension entered into the equation for sequential regression analysis to predict signs of stress was degree of agreement (F=8.65, SD=1-97, p<0.01), accounting for 7% of the total variance. Second entry was helpless approach (F=17.27, SD=2-96, p<0.001), explaining 18% of the variance, and the subscale seeking social support (F=15.40, SD=3-95, p<0.001), in conjunction

Table 4: Variables predicting stress symptoms in the premature and normal menopause groups (results of sequential hierarchical regression analysis)

Variables (in sequence of entry into regression equation)	R	R^2	Adjusted R^2	Beta	t	F
Premature menopause						
Degree of agreement (Marital Adjustment Scale)	0.47	0.22	0.21	-0.44	-3.82***	16.65***
Masculine sex role (Sex Roles Inventory)	0.53	0.29	0.26	0.21	1.94*	11.54***
Helpless approach (Stress Coping Style Inventory)	0.58	0.34	0.30	0.26	2.34**	9.49***
Seeking social support (Stress Coping Style Inventory)	0.63	0.40	0.35	0.25	2.28**	8.96***
Normal menopause						
Degree of agreement (Marital Adjustment Scale)	0.29	0.08	0.07	-0.15	-1.76	8.65**
Masculine sex role (Sex Roles Inventory)	0.51	0.27	0.25	0.34	3.82***	17.27***
Helpless approach (Stress Coping Style Inventory)	0.57	0.33	0.31	-0.23	-2.70**	15.40***
Seeking social support (Stress Coping Style Inventory)	0.60	0.36	0.34	-0.20	-2.27**	13.35***

*p<0.05, **p<0.01, ***p<0.001

with the previous variables, explained 31% of the variance. With the last entry in the equation, self-confident approach (F=13.35, SD=4-94, p<0.001), the variance explained reached 34%. For the beta values, it was seen that the strongest predictor was helpless approach (Beta=0.34).

DISCUSSION

Aim of our study was to compare women with premature menopause and women reaching menopause in the normal age range regarding the variables stress, gender role, and marital adjustment. We first controlled for the effect of the age variable, which was found to be not significant. Then we compared prematurely menopausal women with those reaching menopause in the normal age range regarding the relevant variables. The results showed that women reaching menopause prematurely had a significant increase in the total score for signs of stress and for symptoms in muscular system, parasympathetic system, emotional system, cognitive system, endocrine system, and immune system, compared to women with an age at menopause in the normal range. It was also found that women with a normal age at menopause used self-confident and optimistic approaches in coping with stress more than women with premature menopause. These findings support each other: Women in the normal menopause group were more likely to use effective mechanisms to cope with stress (optimistic approach), while the premature menopause group was more inclined to use ineffective ways (helpless approach); this may explain the increase in stress symptoms found in the group with women in premature menopause. Some of these results support findings in the literature. For example, a study examining the relation between premature menopause and psychological wellbeing, found that stress scores were increased in prematurely menopausal women (28). A review summarizing 18 studies carried out between the years 1966 and 2004 concluded that cardiovascular symptoms and premature menopause might be related (29).

According to t-test analyses, women with early menopause reached lower scores in marital satisfaction. Given that prematurely menopausal women had lower satisfaction scores in the subdimension "relationship type", which includes questions such as "How many of

your activities outside the home do you do together with your spouse?", "Did you never want to be unmarried?", "Do you trust your spouse with your secrets?", is seems understandable that in this group the signs of stress were also found to be at a high level. While correlation analyses for both groups showed a significant correlation between stress scores and marital satisfaction scores, the correlation coefficients were higher with premature menopause than for women with a normal age at menopause. There is also a study showing not only a direct correlation with marital satisfaction, but also pointing out that e.g. divorce is a risk factor for premature menopause (30). In other words, low marital satisfaction and stress appear to be related with premature menopause.

In our study, for each group correlation analyses have been made separately, finding significant correlations in the expected direction. In the premature menopause group, a positive correlation was found between educational status and partner support ($r=0.28$, $p<0.05$) as well as social support ($r=0.23$, $p<0.05$), a negative correlation between educational status and resigned behavior ($r=-0.28$, $p<0.01$). Similar findings, albeit indirect, are also found in the literature. Thus, it has been established that women display a more depressive mood in relation with menopause and increased stress (31). A study examining the impact of psychosocial factors on menopause emphasizes that these variables are related with menopause symptoms and physical health (28). Some studies researching the relation between marital adjustment and menopausal complaints point out that women with a positive attitude to menopause and an adjusted marital relationship have fewer menopausal complaints (13,29). It is also reported that women in an unhappy marital relation before and during the period of menopause display a more negative mood than women with a happy marital relationship (16). These results, even when they do not provide clear information about the issue of stress symptoms, underline the importance of marital adjustment regarding menopausal symptoms and psychological health.

In accordance with the main aim of this study, in order to see if the predictors for signs of stress seen in women with premature menopause are different from those with normal age at menopause, separate regression analyses were done for each group. Eventually, it was seen that demographic variables such as education level, employment status, number of children, and partner support did not enter the equation as predictors. However, in both groups "degree of marital agreement", "helpless approach", and "seeking social support" were established as joint predictors for signs of stress. Other than that, only in the premature menopause group "masculine gender role" was encountered as a predictor. The gender role is known to be a gender-related group expectation defined by society, according to which individuals are expected to perform (17). Since the early 1970s, a large number of studies on this topic have been done, the most interesting of which being the work by Bem (18,19). Bem thought that gender roles are not simply divided between two separate ends, such as "femininity" and "masculinity", but people can be feminine and masculine at the same time. She called those displaying both characteristics at a high level "androgynous" and those with a low level "ambiguous – undifferentiated" (neither feminine nor masculine). It is reported that androgynous individuals can behave more flexibly and adapt to different environments more easily (19). In the present study, it is interesting that a masculine gender role is found as a predictor only in women with early menopause. Women with characteristics such as "understanding", "compassionate", "kind", and "emotional", which culturally are mainly identified with women, are defined as feminine, while those with characteristics like "ambitious", "bold", and "dominant", which are more expected in men, are defined as masculine. Thus, it may be thought that the women in our study who had entered menopause prematurely might not have internalized gender roles seen as socially adequate, and this may have predicted signs of stress. Considering that we know that for both sexes many social, economic, and psychological problems originate from a conflict between the expected traditional roles for women and men (17,19), the correlation between premature menopause and masculine gender role becomes more significant. While

there is no support in the literature, the clash between a woman's internalized gender role (masculine) and the socially expected feminine roles may somehow be related with early menopause. No doubt, even though this correlative study cannot postulate a cause-effect relationship between these variables, it can be assumed that the increased stress experienced by women with premature menopause may have been caused by a more dominant masculine gender role together with low marital adjustment and certain negative characteristics in ways of coping with stress. More detailed studies designed from this perspective will make an important contribution to the literature.

An interesting result is that in the regression analysis for prematurely menopausal women, one of the stress coping mechanisms, seeking social support, was entered into the equation with a positive loading (beta=0.25; t=2.28, $p<0.01$). Instead, it was expected that this mechanism would be entered with a negative loading, like in the normal menopause group (beta=0.23, t=-2.70, $p<0.01$), which is to say that increasing social support would reduce signs of stress. This situation may be considered a specific characteristic of premature menopause; namely, according to a sociocultural view, problems regarding menopause may be a result of negative meanings and stereotypes loaded on to old age and menopause by society (32). It is reported that in the West, menopause is equated with old age, and thus negative attitudes towards old age are directed towards menopause as well (33). Menopause is perceived as a taboo that women need to steer clear of, and since culture gives great importance to fertility, attitudes towards menopause are becoming more negative (34,35). Seen from this point, it is conceivable that in Turkish culture, too, the negative charge especially of premature menopause may lead to an increase in stress symptoms when seeking social support. If we are looking at the content of the items composing the subscale social support, this situation is even clearer to understand. These items ["I don't want anyone to know about the bad state I am in" (inverse entry), "I am taking advice from others in order understand the real reason of the issue", "It comforts me to know that there are people who can help me"] contain questions that may easily elicit positive replies especially in women experiencing premature menopause symptoms. For example, a woman beginning menopause prematurely (as was the case with the women in our sample) may need to take advice and seek medical help. In that case, because of the abovementioned negative attitudes to menopause, her stress symptoms may increase. The premature onset of menopause can be considered a factor exacerbating this situation. The fact that in the normal menopause group social support predicts stress symptoms in the expected direction might be understood in relation to the different culture-specific attitudes towards premature and normal menopause, respectively. In other words, when menopause occurs within the age range that is socially accepted as normal, accepting or seeking social support may not create a stressful situation for the woman.

To summarize briefly, in premature menopause, having a masculine gender role, a low level of marital adjustment, a helpless approach to coping with stress, and using social support predict signs of stress in these women. In normal menopause, however, low marital adjustment, using a helpless approach to coping with stress, and not resorting to social support are predictors for signs of stress. As we have seen, while variables predicting signs of stress in both groups show similarities, in the premature menopause group, especially the entry of masculine gender role into the equation creates an important difference. In addition, in the latter group the need to utilize social support (for counseling or medical help) increases signs of stress. As pointed out above, given that our research was a correlative study, a cause-effect relationship between the variables cannot be established. In subsequent studies to be undertaken in the light of these results, other potentially correlated variables may be added and, using more advanced statistical analysis techniques, a model can be developed.

A review of the literature shows that most studies focus on women with normal age at menopause and their problems, while only very few studies relating to

premature menopause could be found. Therefore, the results of the present study can be seen as a modest contribution towards raising attention for the issue of premature menopause, which represents a major physical and mental difficulty for the respective women. Our study, presenting data regarding stress symptoms, styles of coping with stress, marital adjustment, and gender roles, demonstrates that more research is needed into those and other variables that are potentially related with cases of premature menopause.

It can be assumed that our results may be useful at the stage of psychological treatment and counseling. For example, the study indicates that during psychological treatment/counseling, especially for women with premature menopause, the internalized gender roles need to be investigated, and questions about marital satisfaction/relation should not be overlooked. It also shows the importance of developing women's stress coping capacities in order to reduce signs of stress.

It has been reported that general health and healthcare applications for women in this period are not yet sufficiently known (36). Considering that exercise increases bone strength and reduces the risk of fractures, affecting quality of life positively to a significant degree (12), raising women's awareness by providing information about the processes of menopause may be useful to reduce and prevent stress and develop skills for a healthy life.

There are limitations in this work. For example, due to some constraints, collecting data in the hospital setting did not allow to reach a higher number of women with premature menopause. Furthermore, we did not measure menopause symptoms but only stress symptoms. Another important point is that the sample consisted of women seeking treatment. This point needs to be taken into account for the generalizability of the results. In addition, all limitations resulting from the use of self-assessment scales apply. The results need to be evaluated in the light of these limitations.

Contribution Categories	Name of Author
Development of study idea	M.O.
Methodological design of the study	M.O., A.D.B.
Data acquisition and process	M.O.
Data analysis and interpretation	M.O., A.D.B.
Literature review	M.O.
Manuscript writing	M.O., A.D.B.
Manuscript review and revisation	A.D.B.

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