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The effects of some characteristics of women and menopause symptoms on menopausal attitude **Sumeyye Yagmur**  **Ummuhan Akturk***Inonu University, School of Health, Department of Public Health Nursing, Malatya, Turkey*

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**Abstract**

This study conducted to determine the effect of menopause symptoms of women on their menopausal attitudes. Research is a cross-sectional study. The research universe was composed of women aged 40-64 in the regions where 10 Family Health Centers serve Malatya province center. The sample size of the study was determined as 382 people with the power to represent 0.95 universes with the effect size of 0.25 at the level of 0.05 delusion in the 95% confidence range with the power analysis and the research was completed with 400 women. November 2017-November 2018, the research was conducted in Family Health Centers. Descriptive form, menopause symptom scale, menopausal attitude scale were used. Menopause symptoms were found to be 39% and 42% effective on positive emotional attitude and negative emotional attitude. It has been found that some characteristics of women (age, perception of menopause, and how they enter menopause, etc.) and symptoms of menopause have an effect on menopause attitudes.

Keywords: Menopause symptoms, menopause attitude, menopause period, sexual life**Introduction**

The World Health Organization defines menopause as the permanent cessation of the menstrual cycle as resulting from loss of ovarian function [1].

Whilst the average menopause age of women in the world is 51; the vast majority of women go through menopause between the ages of 45 and 54. Today, approximately 50% of a woman's adult life is post-menopausal. Menopause will affect the lives of many women over their lifetimes [2,3].

The number of menopausal women around world is rising; that number is expected to reach 1.2 billion by 2030. The number of women entering menopause increases faster in developing countries due to the high number of women in reproductive age. It is estimated that by 2030, most menopausal women worldwide [76%] will be living in developing countries. The menopause age in developing countries is smaller than the age reported in developed countries [5].

Low estrogen level during the menopause can cause women to undergo hormonal, physical, and psychological changes. These changes are classified as short and long-term problems. Short-term problems are vasomotor, atrophic, and psychological in nature, whilst long-term problems are either cardiological or osteoporosis-based. While the reasons why menopause symptoms develop are not exactly known, many researchers think that they could be associated with an insufficient release of estrogen [6]. However, they differ from woman to woman. Moreover, the fact that they respond differently to treatments indicates that estrogen deficiency is not the sole culprit. Many factors such as cultural and ethnic differences and differences in daily eating habits may also affect development of menopause symptoms as well [7].

Likewise, the ethnic and cultural structures of different societies are the most important factors affecting women's attitudes towards menopause and how they view middle age. Some women perceive menopause as a natural process; others see it as a disease. These perceptions and the related changes in their lives along with the increasing age also affect their attitudes toward menopause. The literature indicates that women's attitudes toward menopause can affect development and the severity of those symptoms. The more positively they view menopause, the fewer and the less severe symptoms they experience [8,9].

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In Turkey, women's attitudes toward menopause can be either positive or negative. The majority of women who live in rural areas are Muslim. According to Islam, climacterium [menstruation] is a sign of maturity and cleanness, and offers women significant advantages when it comes to fulfilling religious worship [10]. That in turn causes them to have more positive attitudes towards menopause. On the other hand, the loss of childbirth and fertility – which are seen as a woman's most sacred duty – can also cause them to view menopause more negatively as well. As in many other societies, Turkish women's attitudes toward menopause are influenced by religious beliefs, customs, and cultural constructs [11].

Planning and delivering healthcare services during menopause – which constitutes much of a woman's life – are crucial to women's health. This can moreover have a considerable impact on the services that nurses and other healthcare professionals offer. The more menopause symptoms a woman exhibits, the more likely she is to view menopause negatively [12]. In this context, it is extremely important to understand how women's personality traits and menopause symptoms affect their menopausal attitudes [13].

Few studies in the literature investigate this particular issue. The findings from this study would most likely contribute to the nursing literature.

Materials and Methods

Type of the study

This study was cross-sectional in nature.

Population

This study's population consisted of approximately 83,097 women between 40 and 64 years of age. They were registered at ten family health centers (FHC) affiliated with the Turkish Directorate of Public Health and located in the city center. As a result of power analysis, the sample size was calculated as 382 participants at confidence interval of 95%, significance level of 0.05, effect size of 0.25, the power of representing the population of 0.95. An additional 18 people were added due to elimination of some forms and the loss possibility in the study. Thus, the study was completed on 400 women. First, elderly people to be included from each FHC were determined with cluster weighting method and then women aged between 40-64 years registered in 10 Family Health Center were listed and selected via simple random sampling.

Inclusion criteria

- Going through menopause at least 1 year before.
- Not being diagnosed with psychiatric disease

Exclusion criteria

- Suffering from mental illness
- Having hearing problems

Data collection

The data were collected using a descriptive characteristics questionnaire, prepared by the researcher, Menopause Rating Scale

(MRS), and Menopausal Attitude Assessment Scale (MAAS). The data were collected by conducting the face-to-face interview in the Family Health Centers or in the houses of the women during the working hours on 5 weekdays between April 2018 and September 2018. Each interview took approximately 15 to 20 minutes.

Data collection tools

Descriptive characteristics questionnaire

This form was prepared by the researcher based on the literature [16,19,20]. It has 19 questions that asked women about their socio-demographic characteristics and about what they knew about menopause.

Menopause rating scale (MRS)

MRS was originally a German scale developed by Schneider, Heinemann et al., in 1992. It measures the severity of women's menopause symptoms and how they affect their quality of life [14,15]. Schneider, Heinemann et al., also conducted the scale's English validity and reliability in 1996 [15]. It is a Likert-type scale with eleven items. Each item is rated from 0 to 4: 0 (None), 1 (Mild), 2 (Medium), 3 (Severe), and 4 (Very Severe). Total score of the scale is calculated by adding together each item score. Minimum and maximum scores are 0 and 44, respectively. It has also three subscales: somatic complaints (items 1, 2, 3, and 11), psychological complaints (items 4, 5, 6, 7), and urogenital complaints (items 8, 9, 10). The higher a score one receives, the worse their quality of life is, and more severe their menopausal symptoms are [16].

Menopausal attitude assessment scale (MAAS)

Koyuncu et al., conducted the validity and reliability of the scale in 2015 [11]. It has thirteen items and four subscales, and is used for measuring attitudes about menopause among middle-aged women. The subscales include: positive emotional, negative emotional, family relationships, and behavioural – according to the items they contain. Positive emotional subscale measures the positive emotions of women about menopause, and has five items; one can obtain a score of between 0 and 20. Negative emotional subscale contains three items, and looks at negative emotions about menopause. Family relationships subscale has three items, and assesses the relationships of the women with their families during menopause. On both subscales one can obtain a score between 0 and 12. Behavioral subscale has two items, and looks at the behavioral attitudes of women about menopause; one can obtain a score between 0 and 8. The higher the score the women gets, the more positively they view menopause [11].

Variables

The dependent variable

Menopausal attitude.

The independent variable

Menopause symptoms, age, marital status, level of education, perceived income level, employment status, presence of chronic disease, perceptions about menopause.

Data evaluation

SPSS 21.0 software was used to analyze the data. The subjects' descriptive characteristics were expressed in number, percentage distribution, mean, and standard deviation. The Cronbach's α reliability coefficient determined was used to determine the internal consistency of MAAS and MRS. Linear regression analysis was used to find out how the independent variables affected the dependent one. All of the findings were deemed statistically significant at confidence interval of 95% and significance level of $p < 0.05$.

Ethical considerations

Approval from the Inonu University's Health Sciences Scientific Research & Publication Ethics Committee (No:2017/27/7) was obtained before the study commenced. Legal permission was also obtained from the related institution. All of the women were also informed about purpose of the study and were asked to grant their verbal consent. They were told that they could withdraw from the

study at any point in time.

Results

Seventy-nine percent (79%) of the women reported going through menopause naturally. 60.8% had not received any information about menopause, 83.3% had not received treatment for menopause. The demographic characteristics of the participants are shown in Table 1. 79.2% stated that menopause affected their sex lives. 76% perceived menopause as being a natural and normal phenomenon. 20.2% viewed it as end of femininity. 21.5% thought of it as a disease. 58% thought of it as the cessation of fertility. 39% viewed it as 'getting old'. 1.8% viewed it as the end of their social status; however, 3.3% saw it a rising in their social status. 74.5% of the subjects' husbands perceived menopause as being a natural and normal phenomenon. 7.5% viewed it the end of femininity. 6% viewed it as a disease. 28.3% viewed it as the cessation of fertility. 13.5% viewed it as 'getting old.' 1.8% viewed it as a rising in social status (Table 2).

Table 1. Distribution of women by descriptive characteristics (n= 400)

Features	n	%
Age		
40-59	295	73.8
60-64	105	26.2
Marital status		
The married	352	88.0
Single / Divorced	48	12.0
Education level		
Illiterate	90	22.5
Literate	45	11.3
Primary education	192	48.0
High school	55	13.8
University	18	4.5
Perceived income level		
Good	64	16.0
Middle	296	74.0
Bad	40	10.0
Operating status		
Working	44	11.0
Not working	356	89.0
The presence of chronic disease		
Yes	209	52.3
No	191	47.8
Total	400	100
Age average	55.09 $\pm$ 5.8 (Mean $\pm$ SD)	

Table 2. Information on women's menopause (n=400)

Features	n	%
Introduction to menopause		
Naturally	316	79.0
With surgery	52	13.0
Other (Early menopause)	32	8.0
Getting information about the menopause period		
Yes	157	39.3
No	243	60.8
Treatment for menopause		
Yes	67	16.8
No	333	83.3
Menopause affecting sex life		
Yes	83	20.8
No	317	79.2
Menopause detection methods		
Natural, normal process State Detection		
Yes	304	76.0
No	96	24.0
Perception status as the end of femininity		
Yes	81	20.2
No	319	79.8
Receiving status as a disease		
Yes	86	21.5
No	314	78.5
Detection status as the end of fertility		
Yes	232	58.0
No	168	42.0
Perception status as feeling old		
Yes	156	39.0
No	244	61.0
Perception status as the end of social status		
Yes	7	1.8
No	393	98.2
Perception status as the increase of social status (dignity)		
Yes	13	3.3
No	387	96.7
* The types of menopause detection of the spouses (s:352)		
Natural, normal process State Detection		
Yes	296	84.1
No	56	15.9
Perception status as the end of femininity		
Yes	29	8.2
No	323	91.8
Receiving status as a disease		
Yes	24	6.8
No	328	93.2
Detection status as the end of fertility		
Yes	111	27.8
No	241	68.5
Perception status as feeling old		
Yes	55	15.6
No	297	84.4

Perception status as the end of social status		
Yes	0	0
No	352	100.0
Perception status as the increase of social status (dignity)		
Yes	7	1.8
No	393	98.2
* Single / Divorced women are not included		

Linear regression analysis was conducted to examine the effect of the women's socio-demographic characteristics with Positive Emotional Subscale of MAS, Menopause Symptoms and Menopause Symptom with perception of menopause as a natural and normal process. According to Table 3, Menopause Symptoms and Menopause Symptom with perception of menopause as a natural, normal process from the variables taken as the independent variables were effective on Positive Emotional subscale score with the effect sizes of 0.21 and 0.39, respectively. In this case,

menopause symptoms alone among the independent variables had the greatest effect (Table 3).

Linear regression analysis was conducted to examine how the women's socio-demographic characteristics affected Negative Emotional Subscale of MAS. According to Table 4, menopause Symptoms alone and Menopause Symptoms with age among the independent variables were determined to be effective on score of Negative Emotional subscale with the effect size of 0.42 and 0.51, respectively (Table 4).

Table 3. Explanation of the prediction of positive emotional attitude with socio-demographic characteristics and menopause symptoms through regression analysis

Model	Unstandardized coefficients		Standardized coefficients			Rsquare Effect size			
Model	B	SE	Beta	T	Sig	F	Sig	R	
1 (Constant)	17.937	1.690		10.613	.000				
Menopause Symptoms Total	-.212	.083	-.463	-2.560	.017	6.555	.017 ^a	.463 ^a	.215
2 (Constant)	21.943	2.148		10.218	.000				
Menopause Symptoms	-.215	.074	-.470	-2.899	.008	6.917	.003 ^b	.629 ^b	.396
Natural, normal process State Detection	-2.933	1.115	-.426	-2.630	.015				

a Predictors: (Constant), Menopause Symptoms Total
b Predictors: (Constant), Menopause Symptoms total, Natural, Normal Process State Detection
c Dependent Variable: Positive Emotional Attitude

Table 4. Explanation of the prediction of negative emotional attitude with socio-demographic characteristics and menopause symptoms through regression analysis

Model	Unstandardized coefficients		Standardized coefficients			Rsquare Effect size			
Model	B	SE	Beta	T	Sig	F	Sig	R	
1 (Constant)	3.740	1.138		3.287	.003				
Menopause Symptoms Total	.234	.056	.652	4.214	.000	17.755	.000 ^a	.652 ^a	.425
2 (Constant)	10.251	3.299		3.108	.005				
Menopause Symptoms Total	.230	.052	.639	4.406	.000	12.292	.000 ^b	.719 ^b	.517
Age	-.126	.060	-.303	-2.086	.048				

a Predictors: (Constant), Menopause Symptoms Total
b Predictors: (Constant), Menopause Symptoms Total, Age
c Dependent Variable: Negative Emotional Attitude

Table 5. Explanation of the prediction of family relationships attitude with socio-demographic characteristics and menopause symptoms through regression analysis

Model	Unstandardized coefficients		Standardized coefficients			Rsquare Effect size			
Model	B	SE	Beta	T	Sig	F	Sig	R	
1 (Constant)	4.226	.894		4.728	.000				
Urogenital symptom	.627	.183	.574	3.435	.002	11.801	.002 ^a	.574 ^a	.330

a Predictors: (Constant), Urogenital symptom
b Dependent Variable: Family Relationship Attitude

Linear regression analysis was conducted to inspect the effect of women's socio-demographic characteristics with Family Relationships Subscale of MAS. The Urogenital Symptom subscale was effective on score of Family Relationships subscale with the effect size of 0.33 (Table 5).

Linear regression analysis was performed to examine the effect of women's socio-demographic characteristics with Behavioral Attitude Subscale of MAS. Type of Entering Menopause was effective on score of Behavioral Attitude subscale with the effect size of 0.18 (Table 6).

Table 6. Explanation of the prediction of behavioral attitude with socio-demographic characteristics and menopause symptoms through regression analysis

Model	Unstandardized coefficients		Standardized coefficients		Rsquare Effect size			
Model	B	SE	Beta	T	Sig	F	Sig	R
1 (Constant)	4.591	1.039		4.417	.000			
Introduction of Menopause	1.317	.568	.428	2.318	.029	5.375	.029 ^a	.428 ^a
								.183

a Predictors: (Constant), Introduction of Menopause

b Dependent Variable: Behavioral Attitude^a

Discussion

The findings of this study have been discussed in accordance with literature.

In this study, among the list of emotions felt by the women during menopause, more than half of them felt tired, followed by clean, angry, intolerant, and happy. Sievert and Hernandez's study reported that Mexican women experienced both positive and negative emotions during menopause such as feelings of insecure, ugly, interesting, successful, and alive [17]. In their study, Kwak et al., determined that the most widely experienced symptom among menopausal women was fatigue [18].

The women's mean scores were 14.11±4.0 in Positive Emotional subscale, 8.29±2.73 in Negative Emotional subscale, 6.44±2.36 in Family Relationship subscale, and 5.66±2.17 in Behavioral subscale.

As there are no Turkish studies that include mean scores of the same scale, the findings of the present study had to be discussed with other scale studies. Similar to the present study; a study conducted in Turkey reported that women had a positive attitude toward menopause [19]. In their systematic review Ayers et al., examined fifteen articles and found that most women had a positive and neutral attitude toward menopause [8]. Foo-Hoe's study revealed that Indian women generally considered menopause positive because it increased social status with increasing age. On the other hand, other studies found that women's menopausal attitudes were negative. For example, in the study by Kisa it was observed that Turkish women who were older than 40 years of age exhibited negative attitudes toward menopause [20]. In the literature other studies reported that women had negative attitudes about menopause [21,22].

Socio-cultural factors may influence a woman's transition into menopause. Evidence shows us that they may also affect their menopausal attitudes and experiences in social context [19,23,24]. Societies where women place heavy value on physical and sexual attraction as well as on reproductive capacity and young impulse view menopause during which women lose such characteristics. Women from such societies believe that they will lose their social status and sense of achievement during menopause [25]. Furthermore, societies where women hold low status associate

menopause with a loss of fertility [24]. On the other hand, societies where women's social status increases after menopause view menopause positively. For example, in Thailand, China, and India, women often report feeling relieved and independent when they experience menopause [26].

In the present study, the participants' mean scores were 7.76±3.32 in somatic symptoms subscale, 6.77±3.75 in psychological symptoms subscale, 3.03±2.39 in urogenital symptoms subscale, and 17.56±7.95 in the overall Menopause Rating Scale.

It was determined in the study conducted by Aksu using the same scale, it was determined that the participants' mean scores were 6.44±2.36 in somatic symptoms subscale, 5.97±3.33 in psychological symptoms subscale, 3.93±2.77 in urogenital symptoms subscale, and 16.30±7.62 in the overall Menopause Rating Scale [27]. In the study conducted by Avcı using the same scale, it was found that the participants' mean scores were 7.90±4.24 in somatic symptoms subscale, 8.88±4.48 in psychological symptoms subscale, 5.73±3.69 in urogenital symptoms subscale, and 22.52±9.83 in the overall Menopause Rating Scale [28].

The results of the study revealed that menopause symptom score had an effect size of 21% on positive emotional attitude and menopause symptoms and perceiving menopause as a natural and normal process had an effect size of 39%. Batool et al., found in their study that there was a negative significant correlation between menopause symptoms [physical, depressive, anxiety] and menopausal attitude [29]. Ghaderi et al., also found a statistically significant correlation between menopause symptoms (hot flush, night sweats, and depressive mood) and menopausal attitudes [30]. In their study, Erenel et al., determined that women with positive menopausal attitude had lower menopause symptoms [21]. Inayat et al., study revealed that out of 500 women (from Hayatabad, Pakistan), 46% of premenopausal women and 76% of postmenopausal women viewed menopause as a natural phenomenon [31].

In their study, Kisa et al., examined the effects menopausal attitudes on menopause symptoms among women in Gaziantep and found that Turkish women (especially those living in rural areas) viewed menopause to be natural phenomenon and most refused to see a doctor about their menopause-related condition. The findings of the present study are compatible with those of other studies. As

women living in rural areas of Turkey see menopause as a natural process, they are thus more like to view it in a positive menopausal attitude [20].

In this study, the participants' menopause symptom score had an effect size worth 42% on negative emotional. The menopause symptom score with age variable had an effect size worth 51%. These two variables had a very high effect – close to half on the Menopause Negative Emotional Attitude. In their study, Huffman et al., found that there was a negative correlation between women's menopause symptoms and menopausal attitudes. In the same study, Huffman also conducted a regression analysis to find out what effects women's socio-demographic factors and menopause symptoms had on their menopausal attitudes and discovered that only two variables [age and menopause symptoms] influenced these attitudes [32]. In their study, Rotem et al., found that the more severe women's physiological, social, and psychological menopause symptoms were, the more negatively they viewed menopause [33]. Other studies in the literature have demonstrated that women who exhibit high level of menopause symptoms [physical, cognitive, and urogenital] have high level of negative menopausal attitudes [34,35].

Counter to this study, in their study Kwak et al. did not find any significant correlation between women's menopause symptoms and their menopausal attitudes. 18 Some studies found a significant correlation between women's age and menopausal [36,37], whilst others did not [37-39].

In the present study, Urogenital symptom score alone had an effect size of 33% on Family Relationships. Sis and Pasinlioglu found in their study that urogenital symptoms during menopause caused marital adjustment problems among women [40]. Çoban et al., [2008] determined in their study that 27.4% of women expressed that menopause symptoms negatively affected their relationships with their husbands [41]. Papini et al., studied the menopause symptoms and menopausal attitudes of middle-aged married women, and perceived menopause symptoms and attitudes of their husbands. They found that women's menopausal attitudes were negatively correlated with men's perception about the frequency of menopause symptoms. Women with the most positive symptoms had the husbands perceiving the symptoms at the lowest rate. Interestingly, they did not find any significant correlation between menopause symptoms and menopausal attitudes of the women [37]. Yanikkerem et al., revealed that 28.5% of women in Manisa (Turkey) stated that menopause had a negative effect on their daily life relationships with their husbands, 34.2% stated that it affected their spouse's sexual relationships with their husbands and 20.6% stated that it negatively affected their relationships with their children [42]. In a study conducted by Kısa in Turkey, it was determined that sexuality posed a major concern for Turkish women over 40 years of age, and this caused them to exhibit negative attitudes toward menopause. Turkish women – especially those who were mothers had negative attitudes due to loss of female attractiveness, physical power, and respectable roles and their perception about menopause as the end of their sexual lives [20]. Other studies conducted in Turkey have revealed that women exhibit negative menopausal attitude because they are afraid that it will impair the quality of their sex lives [21,43].

It was found in the study that the type of entering menopause

had an effect size of 18% on behavioral subscale. Accordingly, Behavioral subscale scores of those who naturally went through the menopause were higher than the scores of those who went through menopause earlier or with surgical method. No study has been found in the literature investigating the effect of the type of entering menopause on behavioral attitude. Going through the menopause naturally without any surgical procedure may cause women to accept menopause on time, psychologically and physiologically and thus to exhibit more positive behavioral attitudes toward menopause.

Conclusion and recommendations

- The participants exhibited moderate high positive and negative emotional attitudes, as well as moderate family relations and behavioral attitudes toward menopause.
- The women exhibited moderate somatic and psychological symptoms, as well as mild urogenital symptoms. Their total menopause symptom levels were close to moderate.

Some of the women' characteristics (age, menopause perception, and type of entering menopause etc.) were effective on their menopausal attitudes. Their menopause symptoms were also effective on their menopausal attitudes. In accordance with these results, it can be recommended that menopause symptoms of women can be reduced by positively improving their menopausal attitudes.

Study limitations

In this study, only women registered in 10 Family Health Centers in Malatya were evaluated. Since the native language of the researcher is Turkish, those who do not speak Turkish (Kurdish patients and Syrian immigrant patients) were not included in the survey.

Conflict of interests

The authors declare that they have no competing interests.

Financial Disclosure

All authors declare no financial support.

Ethical approval

Approval from the Inonu University's Health Sciences Scientific Research & Publication Ethics Committee (No:2017/27/7) was obtained before the study commenced.

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