

THE EFFECT OF COVID-19 FEAR ON HEALTHY LIFESTYLE BEHAVIORS IN MENOPOSAW WOMEN: CASE OF SOUTHEASTERN ANATOLIA

WPŁYW LĘKU PRZED COVID-19 NA ZACHOWANIA ZWIĄZANE ZE ZDROWYM STYLEM ŻYCIA U KOBIET W OKRESIE MENOPAUZY: PRZYPADEK POŁUDNIOWO- WSCHODNIEJ ANATOLII

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- A. Study design/planning
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- B. Data collection/entry
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- C. Data analysis/statistics
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- D. Data interpretation
interpretacja danych
- E. Preparation of manuscript
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wyszukiwanie i analiza literatury
- G. Funds collection
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Summary

Background. The study was conducted to evaluate the effect of Covid-19 fear on healthy lifestyle behaviors in menopausal women living in the Southeastern Anatolia region.

Material and methods. As of April and June 2021, a descriptive, cross-sectional and relationship-seeking design study was completed with 203 participants who were in the menopausal period and who were between the ages of 40 and 65 and were living in the provinces of Gaziantep, Diyarbakir, Şanlıurfa, Batman, Adiyaman, Siirt, Mardin, Kilis, Şirnak in the Southeastern Anatolia region of Turkey. The data were collected using the descriptive information form prepared by the researchers, the Fear of Covid-19 Scale, the Menopause Symptoms Evaluation Scale and the Healthy Lifestyle Behaviors Scale-II. Descriptive statistical analyses, Mann Whitney U test, Kruskal Wallis H test and Spearman Correlation Analysis were used to analyze the data.

Results. The mean age of the participants was 55.7±5.6 years (min: 40, max: 69), the highest scores in the Healthy Lifestyle Behaviors Scale-II were found in the sub-dimensions of "spiritual development" (23.4±3.2) and "interpersonal relations" (23.1±3.3). In the Menopause Symptoms Evaluation Scale total and sub-dimension scores, it was determined that the "somatic complaints" (10.4±2.6) and "psychological complaints" sub-dimensions (10.7±3.1) had the highest scores.

Conclusions. A statistically significant positive correlation was found between the participants' Fear of Covid-19 Scale scores and Menopause Symptoms Evaluation Scale total and sub-dimension scores. There was a statistically significant positive correlation between the Menopause Symptoms Evaluation Scale and the Healthy Lifestyle Behaviors Scale-II and certain sub-dimensions.

Keywords: healthy lifestyle, menopause, Covid-19, fear

Streszczenie

Wprowadzenie. Badanie przeprowadzono w celu oceny wpływu lęku przed Covid-19 na zachowania związane ze zdrowym stylem życia u kobiet w okresie menopauzalnym mieszkających w regionie południowo-wschodniej Anatolii.

Materiał i metody. W kwietniu i czerwcu 2021 r. przeprowadzono opisowe badanie przekrojowe, w którym poszukiwano związku przyczynowo-skutkowego, z udziałem 203 uczestniczek w okresie menopauzalnym, które były w wieku od 40 do 65 lat i mieszkaly w prowincjach Gaziantep, Diyarbakir, Şanlıurfa, Batman, Adiyaman, Siirt, Mardin, Kilis i Şirnak w południowo-wschodnim regionie Anatolii w Turcji. Dane zbierano za pomocą przygotowanego przez badaczy formularza informacji opisowej, Skali Lęku przed COVID-19, Skali Oceny Objawów Menopauzy oraz Skali Zachowań Związanych ze Zdrowym Stylem Życia. Do analizy danych wykorzystano opisowe analizy statystyczne, test U Manna Whitneya, test H Kruskalla Wallisa oraz analizę korelacji Spearmana.

Wyniki. Średni wiek uczestniczek wynosił 55,7±5,6 lat (min.: 40, maks.: 69), najwyższe wyniki w Skali Zachowań Związanych ze Zdrowym Stylem Życia stwierdzono w wymiarze cząstkowym „rozwój duchowy” (23,4±3,2) i „relacje interpersonalne” (23,1±3,3). W punktacji Skali Oceny Objawów Menopauzy ogółem i w wymiarach cząstkowych określono, że najwyższe wyniki uzyskały wymiary cząstkowe „dolegliwości somatyczne” (10,4±2,6) i „dolegliwości psychologiczne” (10,7±3,1).

Wnioski. Stwierdzono istotną statystycznie dodatnią korelację między wynikami uczestniczek w Skali Lęku przed Covid-19 a wynikami Skali Oceny Objawów Menopauzy w wymiarze całkowitym i cząstkowym. Stwierdzono istotną statystycznie dodatnią korelację między Skalą Oceny Objawów Menopauzy a Skalą Zachowań Związanych ze Zdrowym Stylem Życia i niektórymi wymiarami cząstkowymi.

Słowa kluczowe: zdrowy styl życia, menopauza, Covid-19, lęk

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Introduction

Menopause, according to the World Health Organization (WHO) is defined as “permanent cessation of menstruation due to loss of ovarian activity” [1]. The average age of onset of menopause worldwide is 50-51 [2]. In Turkey, data from the Turkey Demographic and Health Survey (TNSA) 2018 reveals that the menopausal rate of women aged 30-49 is 10.3% compared to the total population, while 45.1% of all women aged 48-49 are in menopause [3]. As a result of the decrease in estrogen level, physical (fever, sweating, palpitation, dry skin, dyspepsia), mental (insomnia, anxiety, depression), social and sexual (vaginal dryness) changes may occur during menopause [4,5].

The Covid-19 virus, which emerged in Wuhan, the People’s Republic of China, in December 2019 and quickly became a pandemic, affects physical and mental health both acutely and long-term. The compulsory social isolation imposed has caused a decrease in social relations, change in interpersonal habits, and heightened feelings such as loneliness and fear of death more intensely. The epidemic has turned into a global psychological trauma [6,7].

It is a known fact that the social isolation applied due to the pandemic has significantly affected women’s lives. The Covid-19 pandemic has caused a change in the diet, a decrease in physical activity, and an increase in health problems such as obesity, cardiovascular diseases, osteoporosis and depression [8-10].

Our study is the first study conducted in our country to evaluate the effect of the fear of Covid-19 on healthy lifestyle behaviors in menopausal women living in the Southeastern Anatolia region.

Research questions:

1. Do the severity of menopausal symptoms increase as the fear of Covid-19 increases?
2. Do healthy lifestyle behaviors increase as the fear of Covid-19 increases?
3. What is the relationship between healthy lifestyle behaviors and menopausal symptoms?

Material and methods

Type of research

Our study is of a descriptive, cross-sectional and correlational design, and was carried out in April-June 2021.

Population and sample of the research

The research population consisted of women aged 40-65 assessed as menopausal and who were living in Gaziantep, Diyarbakir, Şanlıurfa, Batman, Adiyaman, Siirt, Mardin, Kilis, Şirnak provinces located in the Southeastern Anatolia region of Turkey. The reason for this region being chosen is that according to the Turkish Statistical Institute (TurkStat) in 2020, literacy rates were 93,02% in Mardin, 93.68% in Sanliurfa and 93,42% in Siirt, while data from the Turkish Statistical Institute 2021 stated that the unemployment rate was 29.8% in Mardin, Batman, Sirnak and Siirt. Here, the majority of individuals gained their economic livelihood through livestock or agricultural labor [11,12]

In this study, the snowball sampling technique was applied. This is one of the non-random sampling types used in cases where it is difficult to reach the desired population and sample in quantitative research. Within this framework, each interviewee was asked to direct the researcher to a new participant she knew who met the research criteria online (via WhatsApp, e-mail and other social networks). Accordingly, age, educational status, etc. diversity was allowed in terms of variables. As a result, 209 women who had experienced natural or surgical menopause for at least 1 year with this method, volunteered to participate in the study. They were between the ages of 40-65, were citizens of the Republic of Turkey, and had no communication barriers. The study was completed with 203 participants.

According to the sample formula applied, at least 198 people were suitable for the study. In the work, the sample calculation was made by accepting the incidence of fear of Covid-19 as 15%, confidence interval as 95%, power as 80% and effect size as $d=0.05*0.15=0.0075$.

Data collection tools

Descriptive information form

In the form created by the researchers, there are 12 closed-ended questions aiming to evaluate the demographic information of the participants. These included age, education, economic status and the menopausal period.

Fear of Covid-19 Scale (FCV-19S)

The FCV-19S was developed by Ahorsu et al. (2020) in order to measure the fear levels of individuals due to Covid-19 [13]. The 5-point Likert scale consisting of 7 items (1 = I strongly disagree; 5 = I strongly agree) has a single factor. A high score from the scale indicates a high fear of Covid-19. The Cronbach's Alpha score, which was 0.82 in the original scale, was found to be 0.81 in our study.

Menopause Symptoms Evaluation Scale (MSES)

This scale was developed by Schneider et al. in 1992 to assess the severity of menopausal symptoms and quality of life [14]. The Turkish validity study of the scale was carried out by Can Gürkan in 2005. On a Likert-type scale consisting of 11 items, women are asked to indicate the severity of their menopausal symptoms as 0: None, 1: Mild, 2: Moderate, 3: Severe, and 4: Very severe. The scale has sub-dimensions of "somatic complaints", "psychological complaints" and "urogenital complaints". A score between 0-44 is taken from the scale. An increase in the score obtained from the scale indicates an increase in the severity of the complaints experienced, and indicates the degree to which the quality of life is negatively affected [15]. The Cronbach's Alpha score, which was 0.84 in the Turkish validity and reliability study of the scale, was also found to be 0.84 in our study.

Healthy Lifestyle Behaviors Scale-II (HLBS-II)

This scale was developed by Walker et al. (1987) and revised again in 1996 [16]. It measures the health-promoting behaviors associated with an individual's healthy lifestyle. Consisting of 52 items, the scale has 6 sub-factors. These are "spiritual growth", "health responsibility", "physical activity", "nutrition", "interpersonal relationships" and "stress management". The rating is in the form of a 4-point Likert scale: never (1), sometimes (2), often (3), regularly (4). A score between 52 and 208 is taken from the scale. An increased score in the scale indicates a greater positive assessment level of healthy lifestyle behavior. Cronbach's Alpha coefficient is 0.94 for the whole scale and varies between 0.79-0.87 for six sub-factors. In our study, the Cronbach's Alpha score was found to be 0.88.

Analysis of data

Data were analyzed via applying the SPSS 22 program. Descriptive statistical analyzes (mean, standard deviation, median, minimum and maximum values, percentage, etc.) were used in the analysis of the data. The conformity of the data to the normal distribution was analyzed with the Shapiro Wilk-W test (when $p < 0.05$, the data were considered not to fit the normal distribution). Mann Whitney U test was implemented to compare two independent variables that did not fit normal distribution, and Kruskal Wallis H test was applied to compare more than two independent variables, while Spearman Correlation Analysis was used to evaluate the relationship between scale scores. Significance was accepted as $p < 0.05$ in all analyzes.

Ethical aspect of research

Before starting the study, ethics committee approval was obtained from the Istanbul Esenyurt University Clinical Research Ethics Committee (dated 20.05.2021 / E-12483425-199-3822), while permission to use the applied scales was obtained from their authors via e-mail. The purpose of the study was explained to all participants, moreover, that participation is voluntary, that their personal information will be kept confidential and that they can withdraw from the study if they wish. Participants were asked to mark the "I agree to participate in the study" section on the form before starting the survey, which stated that they had read the informed consent text and had agreed to participate. The study was carried out in accordance with the Helsinki Declaration.

Results

The mean age of the participants was 55.7 ± 5.6 years (min: 40, max: 69) and the number of children in their families was 5.9 ± 2 (min: 0, max: 12). It was found that 65% of the participants were literate, 29.1% graduated from primary education, 62.6% did not work, 34% worked at day jobs, 72.9% were married and 79.8% did not smoke, while 8.4% quit smoking after the Covid-19 pandemic. 89.2% of women have entered menopause naturally and 10.8% have entered menopause surgically. The demographic and other characteristics of the participants related to menopause are presented in Table 1.

Table 1. Demographic and menopausal characteristics of the participants

Characteristics	Min-Max	X±SS	Med
Age	40-69	55.7±5.6	56
Number of children	0-12	5.9±2	6
Education status		n	%
Literate		132	65
Primary school graduate		59	29.1
High school graduate		7	3.4
University and above		5	2.5
Working status		n	%
Full time		7	3.4
Daily tasks		69	34
Not working		127	62.6
Marital status		n	%
Married		148	72.9
Single		5	2.5
Widowed or divorced		50	24.6
Smoking		n	%
Using		24	11.8
Not using		162	79.8
Quitting after the Covid-19 pandemic		17	8.4
Form of menopause		n	%
Natural menopause		181	89.2
Surgical menopause		22	10.8
Menopause time		n	%
1 year		17	8.4
2-4 years		72	35.5
5-9 years		92	45.3
10 years and above		22	10.8
Hormone replacement therapy (HRT) use		n	%
Using		29	14.3
Not using		174	85.7
Use of alternative therapy to reduce menopausal symptoms		n	%
Yes		24	11.8
No		179	88.2
Chronic disease status		n	%
No chronic disease		76	37.4
Hypertension		54	26.6
Diabetes		47	23.2
Coronary artery disease		13	6.4
Lung disease		11	5.4
Cancer		2	1
Status of being diagnosed with Covid-19		n	%
Yes		43	21.2
No		160	78.8
		203	100

Regarding the HLBS-II sub-dimension scores, the highest score was of “spiritual development” (23.4±3.2), and of “interpersonal relations” (23.1±3.3). The lowest assessment was of “physical activity” (13.8±4.6) and “stress management” (17.7±3.1). As a result, all participants’ average scale score was 118.5±15.5. In terms of the MSES, the “somatic complaints” (10.4±2.6) and “psychological complaints” sub-dimensions (10.7±3.1) received the highest scores, while the lowest was of “urogenital complaints” (7.4±2.3). Over all, the participants’ average scale score was 28.6±6.7. The mean score of the participants’ FCV-19S was found to be 19.7±5.1 (Table 2).

Table 2. HLBS-II and its sub-dimensions, MSES and its sub-dimensions, FCV-19S scores

Scales	Min-Max	X±SS	Med
HLBS-II	79-171	118.5±15.5	118
Health responsibility	10-33	20±3.8	20
Physical activity	8-30	13.8±4.6	12
Nutrition	13-32	20.4±3.05	20
Spiritual development	12-33	23.4±3.2	23
Interpersonal relations	12-32	23.1±3.3	23
Stress management	10-26	17.7±3.1	18
MSES	18-50	28.6±6.7	27
Somatic complaints	5-18	10.4±2.6	10
Psychological complaints	5-20	10.7±3.1	10
Urogenital complaints	3-15	7.4±2.3	7
FCV-19S	9-35	19.7±5.1	20

With regard to personal characteristics, when the scale scores were evaluated, those who had quit smoking after Covid-19 had statistically significantly higher HLBS-II scores than the others ($p=0.00$). Moreover, both those who underwent surgical menopause and those who used hormone replacement therapy (HRT) had statistically higher HLBS-II scores compared to the others ($p=0.001$). In addition, those who underwent surgical menopause ($p=0.00$), those who did not use alternative treatment to reduce menopausal symptoms ($p=0.00$) and those diagnosed with Covid-19 ($p=0.00$) had statistically higher MSES scores than the others (Table 3).

Table 3. Comparison of the scores of the HLBS-II and its sub-dimensions, MSES and its sub-dimensions, FCV-19S, according to some characteristics of the participants (n=203)

Characteristics		MSES	HLBS-II	FCV-19S
		Med	Med	Med
Smoking				
Using		32	125.5	19.5
Not using		26	115	20
Quitting after the Covid-19 pandemic		33	128	19
Statistical Test	KW-X²	14.2	18.4	0.20
	p	$p=0.001$	$p=0.00$	$p=0.90$
Form of menopause				
Natural menopause		26	116	20
Surgical menopause		33	128	20
Statistical Test	Z	-3.8	-3.2	-0.16
	p	$p=0.00$	$p=0.001$	$p=0.87$
Menopause time				
1 year		33	111	22
2-4 years		26.5	120	19
5-9 years		26	116	20
10 years and above		30.5	118	21.5
Statistical Test	KW-X²	1.7	12.5	4.7
	p	$p=0.62$	$p=0.006$	$p=0.18$

Hormone replacement therapy (HRT) use				
Using		30	124	20
Not using		26	116	20
Statistical Test	Z	-3.1	-3.36	-0.31
	p	<i>p</i> =0.002	<i>p</i>=0.001	<i>p</i> =0.75
Use of alternative therapy to reduce menopausal symptoms				
Yes		33	122.5	20
No		26	116	20
Statistical Test	Z	-3.65	-2.52	-0.58
	p	<i>p</i>=0.00	<i>p</i> =0.01	<i>p</i> =0.55
Status of being diagnosed with Covid-19				
Yes		33	121	21
No		26	116	19
Statistical Test	Z	-3.84	-2.18	-2.3
	p	<i>p</i>=0.00	<i>p</i> =0.02	<i>p</i> =0.01

Notes: Data were analyzed with the Mann-Whitney U and Kruskal Wallis H test.

In our study, a statistically significant positive relationship was found between the FCV-19S scores of the participants and the total and sub-dimension scores of the MSES (*p*=0.00). There was a positive and statistically significant relationship between MSES and the HLBS-II and HLBS-II sub-dimensions (*p*=0.00 and *p*=0.02). What is more, HLBS-II with MSES sub-dimensions of “health responsibility” (*r*=0.81, *p*=0.00), “stress management” (*r*=0.79, *p*=0.00), “nutrition” (*r*=0.72, *p*=0.00), “interpersonal relationships” (*r*=0.65, *p*=0.00), “physical activity” (*r*=0.64, *p*=0.00), “moral development” (*r*=0.62, *p*=0.00) scores revealed a statistically significant positive relationship (Table 4).

Table 4. The relationship between the scores of the HLBS-II and its sub-dimensions, MSES and its sub-dimensions, and FCV-19S

	HLBS-II (r ^s)	Health responsibility (r ^s)	Physical activity (r ^s)	Nutrition (r ^s)	Spiritual development (r ^s)	Inter-personal relations (r ^s)	Stress management (r ^s)	MSES (r ^s)	Somatic complaints (r ^s)	Psychological complaints (r ^s)	Urogenital complaints (r ^s)
Health responsibility	r ^s =0.81 <i>p</i> =0.00	-									
Physical activity	r ^s =0.64 <i>p</i> =0.00	r ^s =0.45 <i>p</i> =0.00	-								
Nutrition	r ^s =0.72 <i>p</i> =0.00	r ^s =0.58 <i>p</i> =0.00	r ^s =0.44 <i>p</i> =0.00	-							
Spiritual development	r ^s =0.62 <i>p</i> =0.00	r ^s =0.43 <i>p</i> =0.00	r ^s =0.13 <i>p</i> =0.05	r ^s =0.34 <i>p</i> =0.00	-						
Interpersonal relations	r ^s =0.65 <i>p</i> =0.00	r ^s =0.47 <i>p</i> =0.00	r ^s =0.10 <i>p</i> =0.12	r ^s =0.42 <i>p</i> =0.00	r ^s =0.57 <i>p</i> =0.00	-					
Stress management	r ^s =0.79 <i>p</i> =0.00	r ^s =0.58 <i>p</i> =0.00	r ^s =0.56 <i>p</i> =0.00	r ^s =0.48 <i>p</i> =0.00	r ^s =0.40 <i>p</i> =0.00	r ^s =0.43 <i>p</i> =0.00	-				
MSES	r ^s =0.64 <i>p</i> =0.00	r ^s =0.45 <i>p</i> =0.00	r ^s =0.64 <i>p</i> =0.00	r ^s =0.45 <i>p</i> =0.00	r ^s =0.64 <i>p</i> =0.00	r ^s =0.45 <i>p</i> =0.00	r ^s =0.16 <i>p</i> =0.02	-			
Somatic complaints	r ^s =0.20 <i>p</i> =0.004	r ^s =0.22 <i>p</i> =0.001	r ^s =0.34 <i>p</i> =0.00	r ^s =0.28 <i>p</i> =0.00	r ^s =0.064 <i>p</i> =0.36	r ^s =0.059 <i>p</i> =0.40	r ^s =0.11 <i>p</i> =0.10	r ^s =0.82 <i>p</i> =0.00	-		
Psychological complaints	r ^s =0.11 <i>p</i> =0.10	r ^s =0.10 <i>p</i> =0.14	r ^s =0.32 <i>p</i> =0.00	r ^s =0.17 <i>p</i> =0.01	r ^s =-0.15 <i>p</i> =0.025	r ^s =-0.017 <i>p</i> =0.81	r ^s =0.11 <i>p</i> =0.11	r ^s =0.89 <i>p</i> =0.00	r ^s =0.64 <i>p</i> =0.00	-	
Urogenital complaints	r ^s =0.19 <i>p</i> =0.006	r ^s =0.16 <i>p</i> =0.01	r ^s =0.34 <i>p</i> =0.00	r ^s =0.19 <i>p</i> =0.005	r ^s =-0.05 <i>p</i> =0.42	r ^s =-0.038 <i>p</i> =0.59	r ^s =0.13 <i>p</i> =0.06	r ^s =0.74 <i>p</i> =0.00	r ^s =0.45 <i>p</i> =0.00	r ^s =0.50 <i>p</i> =0.00	-
FCV-19S	r ^s =0.18 <i>p</i> =0.008	r ^s =0.13 <i>p</i> =0.05	r ^s =0.16 <i>p</i> =0.02	r ^s =0.21 <i>p</i> =0.002	r ^s =-0.001 <i>p</i> =0.99	r ^s =0.19 <i>p</i> =0.006	r ^s =0.16 <i>p</i> =0.01	r ^s =0.29 <i>p</i> =0.00	r ^s =0.30 <i>p</i> =0.00	r ^s =0.25 <i>p</i> =0.00	r ^s =0.15 <i>p</i> =0.00

Discussion

Our study, which was conducted to evaluate the effect of the fear of Covid-19 on menopausal symptoms and healthy lifestyle behaviors in menopausal women, is one of the limited number of studies in the literature in the light of the findings. In our study, it was concluded that the fear of Covid-19 has a positive and significant relationship with menopausal symptoms and healthy lifestyle behaviors.

Although the menopausal period is a normal physiological process in women's life, it is a period in which somatic, psychological and urogenital symptoms are frequently seen due to the decrease in estrogen levels. The symptoms experienced by women during this period can be made evident in different ways in each woman. The Covid-19 pandemic, which emerged in December 2019 and rapidly affected the whole world in a short time, was found to affect physical and mental health globally. Strict measures such as social isolation, quarantine, staying at home, flexible working from home, continuing the online education process at home during the pandemic process have changed the lives of individuals, especially women, and in many aspects, their healthy lifestyle behaviors and habits. In studies conducted to determine the effects of the pandemic on eating behavior and physical activity, it has been reported that it has increased health problems, especially in women [8-10]. In this context, in our study, the behaviors of women were examined by using HLBS-II. We found that in the participants, with regard to the HLBS-II total and sub-dimension, the lowest scores were in the "physical activity" and "stress management" sub-dimensions, and as a result, the mean score of all participants was 118.5 ± 15.5 . The highest score that can be obtained from the scale is 208. In studies using HLBS-II in the literature, the total score of the scale varied from 112.7 to 148.9. In the literature, similar to our study, Sönmezer et al. reported that the mean HLBS-II score was 126.8 ± 19.2 in their study, while the highest scores were in the "interpersonal relations" sub-dimension and the "spiritual development" sub-dimension, similar to our study, while the lowest scores were the "physical activity" sub-dimension and the "stress management" sub-dimension [17]. In the studies of Altıparmak and Koca Kutlu, the total score of HLBS-II was reported as 112.7 ± 20.8 , while the highest scores were reported in the "spiritual development" sub-dimension and the "interpersonal relations" sub-dimension, and the lowest scores were in the "physical activity" and "stress management" sub-dimensions [18]. Similarly, in Bilal's study, it was reported that the highest scores were the "interpersonal relations" sub-dimension and the "spiritual development" sub-dimension, while the lowest scores were the "physical activity" sub-dimension and the "stress management" sub-dimension [19].

When the literature is examined, it is seen that there is a similarity between the HLBS-II total score average and the scale sub-dimensions averages. Hence, awareness of healthy lifestyle behaviors should be created by raising awareness of the importance of physical activity, stress management, nutrition and health responsibility in women.

In studies conducted with women in the menopausal period in our country, MSES scores of 14-20 were reported, and it was found that approximately one out of two women experienced severe menopausal symptoms [20-25]. The fact that there are different results in the literature suggests that the age groups, socioeconomic and educational levels of the base population affect the results. When we examine the distribution of the MSES and sub-dimension mean scores of the women included in the study, the mean MSES score was 28.6 ± 6.7 . It was reported to be 14.80 ± 4.78 in the study of Morardpour et al. [24], 16.04 ± 6.95 in the study of Eskicioğlu [25], and 16.6 ± 8.9 in the study of İkişik et al. [23]. In our study, it was determined that the "psychological complaints" (10.7 ± 3.1) and "somatic complaints" (10.4 ± 2.6) sub-dimensions had the highest scores in the MSES sub-dimensions, and the "urogenital complaints" (7.4 ± 2.3) sub-dimension had the lowest scores.

With regard to related studies, in the study of Tümer and Kartal [22], the mean score of the "somatic complaints" sub-dimension was 2.85 ± 1.99 , the mean score of the "psychological complaints" sub-dimension was 8.96 ± 4.94 , and the mean score of the "urogenital complaints" sub-dimension was 2.84 ± 2.31 . In the study by Morardpour et al. [24], 5.57±2.27 points from the "somatic complaints" sub-dimension, 5.03±2.47 points from the "psychological complaints" sub-dimension, and 4.16±2.07 points from the "urogenital complaints" sub-dimension were registered. In turn, in Eskicioğlu's [25] study, 3.04±2.00 was demonstrated in the "somatic complaints" sub-dimension, 9.33±4.45 from the "psychological complaints" sub-dimension, 3.65±2.60 from the "urogenital complaints" sub-dimension. In addition, in the work of İkişik et al. [23], 6.2±3.5 points was indicated for the sub-dimension of "somatic complaints", 6.5±3.7 points for the sub-dimension of "psychological complaints", and 3.8±2.7 points for the sub-dimension of "urogenital complaints" [23-25]. Contrary to the literature, in our study, it is seen that the average scores obtained from the MSES and its sub-dimensions are high. It is thought that this difference is due to the sociodemographic, cultural and educational status of the women in the region where our study was conducted. Over all, the problems experienced by women in the

menopausal period reduce their quality of life, affect their social relationships, and accordingly, negatively affect their healthy lifestyle behaviors.

In our study, it was found that the mean score of the women's FCV-19S was 19.7 ± 5.1 . Beyond the aforementioned, in our study, a positive and significant relationship was found between the participants' FCV-19S scores and their MSES total and sub-dimension scores. We noted a very positive and significant relationship between MSES and HLBS-II and HLBS-II sub-dimensions, and there is a highly positive relationship between MSES and HLBS-II sub-dimensions "health responsibility", "stress management", "nutrition", "interpersonal relations", "physical activity", and "spiritual development" scores.

The menopausal period is a period in which complex problems are experienced in women's lives. The most important factor in the emergence of these problems is the decrease in estrogen levels during this period. There are studies that argue that estrogen has a protective effect against Covid-19 infection due to its anti-inflammatory effect [26]. The literature shows that low estrogen levels in postmenopausal women may increase their susceptibility to Covid-19 infection [27-29]. In the literature, it has been reported that women in the postmenopausal period have a higher risk of contracting Covid-19 infection than women in the perimenopausal period [27]. In addition, quarantine practices and restrictions due to the Covid-19 pandemic cause severe problems experienced by women in the menopausal period [30] and negatively affect healthy lifestyle behaviors and therefore their quality of life [31].

The Covid-19 pandemic has also shown that women experience more psychological distress than men and have higher levels of anxiety and depression [32-35]. As a result, due to the uncertainty of the Covid-19 pandemic, women in this period saw their menopausal symptoms as a threat to their health and that it increased their stress levels. They reported that quarantine practices also negatively affected their physical activity levels due to the Covid-19 pandemic [36,37].

In the literature, it has been reported that physical activity continued during the Covid-19 period reduces chronic diseases, especially in women aged 55-64 [37], and anxiety levels are low, especially in postmenopausal women [38] who were active physically. In line with evidence-based information, women should be encouraged to seek quality medical and psychological care during the pandemic period, especially if they are in middle age and in menopause [39].

Limitations of the study

The findings obtained from the study are limited to the sample group. Our study was not conducted among women with different cultural characteristics, and since it was conducted with a group of women in the Southeastern Anatolia region, it cannot be generalized to the society.

Conclusions

Both in the world and in our country, we are seeing that the Covid-19 pandemic is increasingly affecting women's health. In our study, it was also concluded that the fear of Covid-19 has a positive and significant relationship with menopausal symptoms and healthy lifestyle behaviors. Along with the quarantine measures and social isolation imposed by the pandemic, the economic and social crisis experienced by women is deepening day by day, and women are experiencing difficulties in meeting health care requirements and using the available resources.

The increasing responsibilities brought about by constant home presence with quarantines, and efforts to meet the needs of family members lead to women being at greater risk of mental health problems. Health professionals should provide women with accurate and effective up-to-date information to cope with the health problems that they may encounter during menopause and during the pandemic.

In this direction, to enable women in menopause to follow healthy lifestyle behaviors, the use of mass media can be useful for the development of consciousness and awareness. In dealing with these behaviors, the women's health protection services need to be improved and upgraded.

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