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Complementary and Alternative Medicine Methods Used for Sleep Disturbance in Menopause

Menopozda Görülen Uyku Sorunlarında Kullanılan Tamamlayıcı ve Alternatif Tedavi Yöntemleri

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Abstract

Objective: One of the most common complaints observed during the menopausal period is sleep disorders, affecting 40%-60% women. In this study, we aimed to determine complementary and clternative medicine (CAM) for menopausal women experiencing sleep disturbances, and the prevalence and influencing factors of sleep disturbance.

Materials and Methods: In this descriptive cross-sectional study, we included menopausal women experiencing sleeplessness [≥4 degree of discomfort according to the Visual Analog Scale (VAS)] (n=201). A questionnaire and the CAM Scale were used to collect data. The necessary institutional and ethical committee permissions were obtained.

Results: The mean age of the menopausal women was 47.23±4.53 [minimum (min)- maximum (max), 30-60] years, and their mean VAS for insomnia was 5.20±1.12 (min-max, 4-9). The following methods were used by the women to overcome insomnia: herbal supplements (96.6%), dietary supplements (98.8%), religious practices (95.7%), and mind-body practices (76.9%). The most common methods were fruits and vegetables, milk and dairy products, honey, linden tea, rosehip, prayer, pray, and music. Approximately 70.5% women expressed that the method they used was effective.

Conclusion: Almost all menopausal women used any method of CAM. Further studies on the effectiveness of these methods as well as the training to be provided and the information dissemination by healthcare professionals are recommended.

Keywords: Menopause, Sleep disturbance, Complementary and alternative medicine

Öz

Amaç: Menopozal dönemde görülen en sık şikayetlerden biri de uyku bozukluklarıdır ve kadınların %40-60'ını etkilemektedir. Çalışma menopoz döneminde olan kadınların uyku sorunlarına yönelik kullanmış oldukları tamamlayıcı ve alternatif tedavileri (TAT), yaygınlığını ve etkileyen faktörleri belirlemek için planlandı.

Gereç ve Yöntem: Çalışma tanımlayıcı ve kesitsel niteliktedir. Örneklemini menopoz döneminde olan ve uykusuzluk problemi Visual Analog Skalasına (VAS) göre 4 ve üstü derecede rahatsızlık hisseden) yaşayan kadınlar oluşturmaktadır (n=201). Verilerin toplanmasında, kadınların sosyo-demografik özellikleri, menopozal döneme ait bilgileri ve uyku sorunlarını içeren anket formu ile TAT Ölçeği kullanıldı. Gerekli kurum ve etik kurul izinleri alındı. Verilerin analizlerinde yüzde, ortalama, ki-kare, Mann-Whitney U ve Kruskal-Wallis testleri yapıldı.

Bulgular: Kadınların menopoz yaş ortalaması 47,23±4,53 [minimum (min)-maksimum (maks)= 35-65), VAS'a göre kadınların uykusuzluk şikayetleri ortalaması 5,20±1,12 (min-maks= 4-9)'dir. Kadınların uykusuzluk problemi için kullanmış oldukları yöntemler; bitkisel yaklaşımlar (%96,6), diyet takviyesi (%98,8), dini yaklaşımlar (%95,7) ve zihin-beden uygulamalarıdır (%76,9). En sık kullanılan yöntemler; meyve-sebzeler, süt ve süt ürünleri, bal, ıhlamur, kuşburnu, namaz, dua etmek ve müzik gibi uygulamalardır. Kadınların %70,5'i ise kullandıkları yöntemin etkili olduğunu ifade etti.

Sonuç: Menopozal dönemde olan kadınların hemen hemen hepsi herhangi bir TAT yöntemi kullanmaktadır. Kadınların çoğunluğu bu yöntemleri sağlık profesyonellerinden eğitim almadan uygulamaktadır. Bu yöntemlerin etkinliklerinin daha geniş kapsamlı olarak araştırılması, eğitimlerin sağlık profesyonelleri tarafından verilmesi ve yaygınlaştırılması önerilmektedir.

Anahtar Kelimeler: Menapoz, Uyku sorunları, Tamamlayıcı ve alternatif tedavi

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Introduction

Menopause is a natural biological process where estrogen levels decrease, and the menstrual cycle stops as a result of the depletion of egg follicles. Natural menopause age varies between 40 and 58, and the average age is 51 (1). Especially as a result of fluctuations in estrogen level and gradual decrease menopause symptoms start to be seen such as hot flashes and night sweats 36-87%, sleep problems 40-60%, palpitations 44-50%, weight gain 60-70%, muscle and joint pain 48-72%, headache 32-71%, memory loss 41-44%, mood change 15-78%, sexual dysfunction 20-30% (2-4).

One of the most common complaints observed in the menopausal period is sleep disorders and affects 40 to 60% of women (5). Age, socio-economic and business-related factors, chronic diseases, depression, mood disorders, hormonal fluctuations and symptoms related to menopause causes women to experience sleep problems during menopause (6,7). It is also noted that there is a correlation between the complaints of hot flashes and sleep problems, especially a strong correlation between night sweats and waking up (2). The most common sleep complaints during menopause are waking up at night and having difficulty falling asleep again (8). Quality of life, healthy living behaviors, work efficiency, mood and physical health of women are adversely affected as a result of sleep disorders, and thus health service use is increasing. Besides, it has long-term effects on health and well-being (2,9). It has been reported that poor sleep quality and insufficient sleep time are associated with adverse health outcomes such as obesity, cardiovascular diseases, cancer-related deaths, diabetes, depression. For this reason, it is important for women's health to identify the sleep disorders and related risk factors of women in the menopause period and to cure properly (10).

It is recommended that hormone therapy be used at a minimum level in the short term to reduce symptoms (11,12). However, there is an opinion polarization about hormone therapy worldwide according to heart and estrogen/progestin replacement (13), Women's Health Initiative (14), Trial and Million Women Study (15) publications. The Scientific Advisory Committee of the Royal College of Obstetricians and Gynecologists recommended non-drug treatments to reduce menopausal symptoms in 2006. Especially recently, the use of complementary and alternative treatment of non-pharmacological methods for insomnia problems is preferred (16).

This study was designed to determine the complementary and alternative treatments that women in the menopause period receive for sleep disturbances, the frequency, and the affecting factors.

Materials and Methods

Setting and Sample

The study is descriptive and cross-sectional. The research population is composed of women applied to a public hospital polyclinic (internal medicine, gynecology) between 15.02.2018/15.06.2018 and the sample unit is composed of 201 women accepted to take part voluntarily in the study. The suitability of the data and the adequacy of the sample size were examined with the Kaiser-Meyer-Olkin (KMO) coefficient and Bartlett's Test of Sphericity. KMO values of 0.80 and above are excellent, values between 0.70-0.80 are good, values between 0.60-0.70 are moderate, values between 0.50-0.60 are bad, and values below 0.50 are unacceptable (17). In this study, KMO coefficient of Complementary and Alternative Medicine Scale (CAMS) was found 0.787 (good).

Inclusion and Exclusion Criteria

The study included women who were in the menopausal period by their declarations, who had not menstruated for the past one year and had complaints of insomnia [who reported complaints of 4 or more complaints according to the Visual Analog Scale (VAS)]. The VAS scale consists of sequential numbers from 0 to 10. Number 0 refers to "no complaints at all", and number 10 implies "complaints are the most severe". It was not included in the study in the case that women did not agree to take part in the study and had cognitive problems. A total of 112 women in the menopausal period without sleep problems were excluded from the study.

Data Collection Tools

The data forms of the research were created in accordance with the literature review. A questionnaire including socio-demographic characteristics of women, information about the menopausal period and sleep disturbance, and CAMS were used.

Complementary and Alternative Medicine scale: CAMS was developed by Can et al. (18) The scale consists of five subgroups of 55 CAM interventions frequently used. The five subgroups comprise the following; including the biological practices subgroup (3 items), herbal supplement subgroup (29 items), mind-body practices subgroup (5 items), religious practices subgroup (5 items) and dietary supplement subgroup (14 items). CAMS assesses the use of individual CAM methods by dichotomous responses, where 1 means "yes" and 0 means "no". Sub-dimension scores were calculated summing up the scores of individual items and the total score of the scale is the sum of individual sub-dimension scores. The Kuder-Richardson 20 (KR20) coefficient for the scale was 0.84 (18).

Ethical Considerations

The required permission to conduct the study was obtained from the administration unit of the Health Directorate and from the Scientific Research and Publication Board of Gümüşhane University (Number: 95674917-604.01.02-E.6100). Eligible women were informed about the study. Verbal consent was obtained from women, who accepted to participate in the study. Each woman was interviewed for 20 minutes to fill in the data collection questionnaire.

Statistical Analysis

Descriptive statistics, median, mean, frequency and percentages were used for summarizing the distribution of women features and characteristics of menopause. The Mann-Whitney U and Kruskal-Wallis tests were used in the assessment of factors

affecting CAM use. All statistical tests were two-sided and the significance level was set at 0.05.

Results

The socio-demographic characteristics of women are shown in Table 1. 81.1% of women with a mean age of 54.53±6.02 [minimum (min)-maximum (max)=35-65] were the housewife, 47.3% of them were high-school graduate and postgraduate, and 84.6% were married. The average age of women in menopause was 47.23±4.53 (min-max=30-60), and the average of complaints of insomnia according to VAS was 5.20±1.12 (min-max=4-9).

According to the research, 9% of women were smoking, 33.3% were consuming 1 or 2 cups of coffee per day. 73% of the women were overweight and obese group, their average Body Mass Index (BMI) was 27.7±4.49 (min-max=19-43). 61.2% of women had a chronic disease (such as hypertension, diabetes, asthma), and 21.4% of them have a constant drug.

In this study, 6% of the women surgically and 3% went through early menopause (below 40 years old). The mean VAS score of insomnia in women surgically went through menopause is 5.25, and the mean of VAS for those who went through early menopause is 6.1. 53.5% of women have knowledge of the menopausal period. Doctor-nurse (27.4%), the circle of friends (38.3%) and TV-media (11.4%) were determined as the source of information. 59.8% of the women expressed that they got alternative treatment for sleep problems (such as herbal treatment, exercise, massage, aromatherapy, yoga). 70.5% of women stated that the method they used worked. 66.2% of the women began to have an alternative treatment by hearing from the environment, 18.2% from the nurses, 9.1% from the doctor and 6.1% from social media. 14.9% of women used drugs for their sleep problems by applying for a doctor. Women's problems with insomnia were presented in Table 2.

It was determined that the complaints began in the premenopausal period (in the first year of menopause) for half of the women suffering from sleep complaints. About half of women stated that they had a problem to fall asleep in 15 minutes, more than half of them had complaints once or two times a week. It was found that 81.1% of women affected by their daily life activities due to sleep problems and 87.5% of women whose daily life affected received medical treatment (Table 2). In addition, all women have tried different methods for their sleep problems. CAM practices used by women for their sleep problems in menopause were given in Table 3.

It was found that the use of CAM for women experiencing sleep problems in menopause was quite common (96.6% of them were herbal, 98.8% were nutritional, 95.7% were religious and 76.9% of them were mental approaches) and they did not prefer only biological methods. Comparison of sub-dimension and total score averages of CAM scale according to characteristics of the participants is given in Table 4.

As a result of the analysis of some characteristics of the participants with the CAM Score averages, no significant differences were found between the contagion to the daily

Table 1. Socio-demographic characteristics of the participants (n=201)

Employment Status	**n**	**%**
Housewife	163	81.1
Retired	16	8.0
Working	22	10.9
Total	200	100.0
Educational status	**n**	**%**
Literate	37	18.4
Primary School	69	34.3
High School and above	95	47.3
Total	201	100.0
Marital status	**n**	**%**
Married	170	84.6
Single	31	15.4
Total	201	100.0
Income status	**n**	**%**
Less income than expense	62	30.8
Equal income to expense	127	63.2
More income than expense	12	6.0
Total	201	100.0

Table 2. The problems of the participants related to insomnia (n=201)

The time when insomnia complaints are seen	**n**	**%**
In the first year of the menopause period	100	50.0
Within the first five years of the menopause period	46	23.0
Throughout the whole menopause period	54	27.0
Total	201	100.0
Methods of coping with the insomnia problem	**n**	**%**
A quiet and dim room preference	59	29.6
A warmish and cool room preference	46	23.2
Drinking milk and eating yogurt	55	27.6
Wear comfortable and antiperspirant clothing	18	9.0
Others	21	10.6
Total	199	100.0
The influencing status of the daily activities	**n**	**%**
Yes	163	81.1
No	38	18.9
Total	201	100.0
Time to fall asleep	**n**	**%**
In 15 minutes	83	44.9
In 30 minutes	60	32.4
In 60 minutes	29	15.7
More than 30 minutes	13	7.0
Total	185	100.0
The frequency of sleep problem	**n**	**%**
Everyday	53	26.6
2-3 times per week	76	38.2
Once a week	62	31.2
Once a month	8	4.0
Total	133	100.0

Table 3. Use of complementary and alternative medicine therapies[a] (n=201)					
Herbal supplements	**n**	**%**	**Dietary supplements**	**n**	**%**
Stinging nettle	78	38.8	Yoghurt	150	74.6
Rosehip	116	57.7	Milk and milk products	138	68.7
Linden tea	126	67.2	Honey	137	68.2
Bee milk	9	4.5	Carob syrup	59	29.4
Daisy	87	43.3	Anzer honey	32	18.4
Green tea	91	45.3	Mullberry syrup	72	35.8
Sage tea	80	39.8	Chestnut honey	37	18.4
Nigella sativa	84	41.8	Pomegranate	63	31.3
Blueberries	17	8.5	Grapefruit	44	21.9
Mallow	14	7.0	Garlic	58	28.9
Ginger	69	34.3	Carrot	69	32.3
Sweet almond	29	14.4	Other fruits and vegetables	170	87.6
Curcuma	47	23.4	Red meat	99	49.3
Flax seed	12	6.0	Fish	91	45.3
Vitamin	37	18.4	Chicken	90	44.8
Centaury	16	8.0	Bread/pastry	72	35.8
Thyme	87	43.3	Sweet-tatlı	62	30.8
Mistletoe	29	14.4	Other	4	2.0
Yarrow	12	6.0	**Religious practices**	**n**	**%**
French lavender	16	8.0	Namaz[b]	174	86.6
Juniper	14	7.0	Pray	179	89.1
Grape seed	38	18.9	Carry written amulet	35	17.4
Omega 3	15	7.5	Visit place where holy man is bruied	20	10.0
Soybean	13	6.5	Being prayed by hodja	27	13.4
Other (Horsetail, Ginseng panex, swedish syrup)	13	6.5			
Mind-body practices	**n**	**%**	**Biological practices**	-	-
Exercise	35	9.8			
Meditation	10	5.0			
Yoga	2	1.6			
Acupuncture	6	3.0			
Music	77	38.3			

[a]: Some patients used more than one CAM therapy so the percentages of CAM use are given according to the related item, [b]: Namaz: Prayer performed bu Muslims five times a day

life, income status, information about the menopausal period, where the information was taken and the presence of chronic disease. However, those who did not receive any information about the menopause period, those who did not have a chronic disease, and whose education status was low and income status was higher had higher mean scores. CAM Scale scores were lower for those whose daily life activities were affected.

As a result of the analysis, the use of CAM methods was more common for people who didn't smoke, who didn't drink coffee during the day, who had normal weight according to BMI, who didn't receive any medical help for their menopause complaints, who had more frequent complaints of insomnia.

Discussion

The mean age of women in the study was 55 and the mean age of menopause was 47. Although menopausal age varies according to countries, the findings were similar to other studies. While the age of menopause in the developed countries is between 49.3 and 51.4, it is between 43.5 and 49.4 in the developing countries. For example, the average age of menopause in Jordan is 50-51, 47 in Turkey, 48 in Egypt and The United States is also reported to be 51-52 years old (19-21). The average of insomnia complaints among women took part in the study is 5.2 according to VAS and is besetting at a moderate level. Studies have also shown that the insomnia

Table 4. Comparison of sub-dimension and total score averages of CAM scale according to characteristics of the participants					
	Herbal Approaches	**Nutritional Approaches**	**Religious Approaches**	**Spiritual Approaches**	**Total**
	Median (%95 CI)	**Median (%95 CI)**	**Median (%95 CI)**	**Median (%95 CI)**	**Median (%95 CI)**
Getting information about menopause					
Yes	5.00 (4.52-6.33)	6.00 (6.13-8.10)	2.00 (2.08-2.47)	1.00 (0.79-1.17)	15.00 (13.98-17.65)
No	5.00 (5.25-7.09)	8.00 (6.76-8.96)	2.00 (2.08-2.55)	1.00 (0.87-1.31)	16.00 (15.56-19.31)
Test value	U=4223.000	U=4580.000	U=4224.000	U=3219.000	U=4375.500
	p=0.103	p=0.606	p=0.378	p=0.567	p=0.249
Chronic disease condition					
Yes	6.00 (4.82-7.12)	5.00 (5.41-8.34)	2.00 (2.13-2.74)	1.00 (0.79-1.39)	15.00 (13.94-18.84)
No	5.00 (4.90-6.46)	7.00 (6.83-8.53)	2.00 (2.06-2.41)	1.00 (0.86-1.19)	15.00 (15.07-18.19)
Test value	U=3911.000	U=3635.000	U=3068.000	U=2728.500	U=3863.000
	p=0.684	p=0.364	p=0.071	p=0.863	p=0.726
Information resources on menopause					
Tv	3.50 (2.76-5.56)	4.00 (3.69-7.30)	2.00 (1.87-2.34)	1.00 (0.69-1.41)	13.00 (9.86-15.79)
Environment	5.00 (5.21-7.42)	7.00 (6.50-8.95)	2.00 (2.04-2.58)	1.00 (0.90-1.42)	15.00 (15.17-19.85)
Health worker	4.50 (4.15-6.93)	5.00 (5.45-8.26)	2.00 (2.01-2.60)	1.00 (0.65-1.19)	15.00 (13.05-18.22)
Test değeri	KW=1.269	KW=2.144	KW=1.712	KW=1.004	KW=1.625
	p=0.530	p=0.342	p=0.425	p=0.605	p=0.444
Education status					
Literate	5.00 (5.01-7.15)	8.00 (6.65-9.09)	2.00 (2.06-2.61)	1.00 (0.74-1.25)	16.50 (15.15-19.45)
Pri-secondary	6.00 (5.30-7.64)	7.00 (6.31-8.77)	2.00 (2.09-2.56)	1.00 (0.92-1.40)	15.00 (15.15-19.86)
High/higher	3.50 (3.35-5.21)	5.50 (5.29-8.13)	2.00 (1.91-2.46)	1.00 (0.65-1.15)	13.50 (11.95-16.18)
Test value	**KW=11.428**	KW=0.356	KW=1.067	KW=3.081	KW=4.312
	p=0.003	p=0.857	p=0.586	p=0.214	p=0.116
Income Status					
Income less	4.00 (3.87-6.00)	7.00 (5.99-8.80)	2.00 (1.87-2.37)	1.00 (0.58-1.16)	15.00 (13.02-17.61)
Income equal	5.00 (5.16-6.79)	6.00 (6.30-8.07)	2.00 (2.16-2.54)	1.00 (0.94-1.28)	15.00 (15.01-18.26)
Income more	8.00 (3.72-12.27)	12.00 (9.1-13.7)	2.00 (1.39-3.74)	1.00 (0.24-1.75)	24.00 (15.85-30.14)
Test value	KW=1.764	KW=2.493	KW=1.378	KW=2.643	KW=1.444
	p=0.414	p=0.288	p=0.502	p=0.267	p=0.486
Affected daily life					
Yes	5.00 (4.89-6.32)	7.00 (6.61-8.19)	2.00 (2.12-2.44)	1.00 (0.88-1.19)	15.00 (14.89-17.76)
No	6.00 (4.86-8.93)	9.00 (6.39-11.1)	2.00 (1.82-2.67)	1.00 (0.70-1.79)	18.50 (15.21-23.08)
Test value	U=1605.000	U=1748.500	U=1865.500	U=1315.000	U=1752.500
	p=0.051	p=0.192	p=0.340	p=0.606	p=0.117

*: There was no patient using biological practices, CAM: Complementary and alternative medicine, CI: Confidence interval

problems during the menopausal period are disturbing and affect the quality of life of women (22,23).

According to the research, 6% of women surgically went through menopause and 3% went through early menopause. The most frequent complaints of insomnia were seen among the women who had early menopause, and secondly among the women surgically went through menopause. In addition, half of the women experienced a more acute complaint in the premenopausal period. The Study of Women's Health Across the Nation reported that 38% of women aged 40-55 years had sleep problems, this rate increased after perimenopausal (45.4%), and surgical postmenopause (47.6%) (8). Similarly, The Wisconsin Sleep Cohortuna, which resembles our study, reported that premenopausal women's sleep complaints are twice as much as perimenopause and postmenopausal women. In the study of Jehan, it was also reported that the prevalence of sleep disorder ranged from 39% to 47% in perimenopause, and 35% to 60% in postmenopause (24).

About half of women who suffer from insomnia to fall asleep within 15 minutes and almost all of them uses different

methods to overcome sleep problems. It was found that one-quarter of the women had complaints every day and the life quality of the majority of women deteriorated. In a study, 25% of perimenopausal women and 30% of postmenopause women reported having a good night's sleep only a few nights in a month or less (22,23).

About half of women had knowledge of the menopausal period and only one-fourth of them received information from their health care providers about the period. 70% of women who used CAM also expressed that the method was effective. In studies, it was found that women in the menopausal periods did not prefer hormone therapies and antidepressants for sleep problems due to their adverse side effects. For these reasons, women tend towards alternative and complementary treatments (23,25). In particular, herbal treatments such as black bugbane (26), omega-3 (27), valerian (28), isoflavone (29) and dietary supplements are popular methods preferred by women for sleep problems. It is noted that non-pharmacological methods such as acupuncture, awareness, reflexology, exercise, and yoga are preferred recently, and more studies are needed (30,31). In our study, it was found that women used many CAM methods for their sleep problems the most preferred methods are Religious practices [prayer (89.1%), pray (86.6%)]. Dietary supplements [yoghurt (74.6%), milk and milk products (68.7), honey (68.2), fruits and vegetables (87.6%)], herbal supplements [linden tea (67.2%), rosehip (57.7%), green tea (45.3%), nigella sativa (41.8%), thyme (43.3%), daisy (43.3%)], mind-body practices [music (38.3%), exercise (9.8%)]. It is more common CAM to be used among those who do not have a knowledge of the menopausal period, do not have a chronic disease, do not smoke, do not drink coffee, do not receive medical aid, and those with low-educational status, with high-income, and with normal weight. It was also stated that poor sleep quality during menopause was higher among women with low education and low income in the study of Kim et al. (10).

Conclusion

Sleep problem is one of the common disorders that women face throughout their lives. It is also commonly seen in physiological changes such as menopause. Poor quality of sleep affects women's daily life activities. Women prefer alternative and complementary treatments rather than medical therapies for the treatment of sleep problems. The present study found that almost all women with sleep problems during the menopausal period used CAM and started without any training or knowledge. The effectiveness of these methods should be investigated more comprehensively, the education for women in menopause should be given by health professionals and the education should be generalized. The limitation of the study was that sleep was not assessed by a structured instrument. In addition, it is recommended to carry out far-reaching studies where sleep is evaluated with applications such as actigraphy.

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Ethics

Ethics Committee Approval: Health Directorate and from the Scientific Research and Publication Board of Gümüşhane University (Number: 95674917-604.01.02-E.6100).
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Authorship Contributions

Concept: H.Ö., S.Ç., E.S., Design: H.Ö., S.Ç., E.S., Data Collection or Processing: H.Ö., S.Ç., E.S., Analysis or Interpretation: H.Ö., Literature Search: H.Ö., S.Ç., E.S., Writing: H.Ö.
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