Effect of Back Message on Sleep Pattern among Menopausal Women

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Abstract:

Background: Menopause is the time that marks the end of women menstrual cycles and diagnosed after women stay 12 months without a menstrual period. Menopause can happen in women 40s or 50s. **Aim of the research:** Was to evaluate effect of back message on sleep Pattern among menopausal women. **Research design**: Quasi- experimental study was utilized to fulfill the aim of the study. **Setting:** conducted at obstetrics and gynecological outpatient clinic affiliated to the Benha university hospital. **Sample:** A purposive sample was used the sample size was (120) menopausal women were included in the study. **Tools of data collection:** Data was collected by using two tools Tool (I):- Interviewing questionnaire sheet Tool (II) Pittsburgh sleep quality index (PSQI). **Results**: There was statistically significant difference between studied sample regarding knowledge of menopause, sleep pattern and back massage pre and post intervention**.** There was significant improvement in sleep among studied sample post intervention compared to pre-intervention. **Conclusion:** Back massage had positive effect on menopausal women as promoting sleep pattern, Applying back massage would improve quality of sleep pattern among menopausal women post intervention than pre intervention. **Recommendations:** Developing periodic awareness program for menopausal women to enhance their knowledge regarding effect of back massage on promoting sleep pattern

Introduction

Menopause is the time that marks the end of women menstrual cycles and diagnosed after women stay 12 months without a menstrual period. Menopause can happen in women 40s or 50s, but the average age is 51 in the United States. Menopause is a natural biological process, but physical symptoms, such as hot flashes, and emotional symptoms of menopause may disrupt women sleep, lower women energy or affect emotional health **(Dillaway, 2020).**

Menopause can result from naturally declining reproductive hormones. Women ovaries produce hormones, including estrogen and progesterone that regulate the menstrual cycle. Surgery to remove women ovaries causes immediate menopause. Women periods stop, and women likely to have hot flashes and experience other menopausal signs and symptoms. Premature menopause may result from the failure of women ovaries to produce normal levels of reproductive hormones (primary ovarian insufficiency) which can stem from genetic factors or autoimmune disease **(Bimonte et al., 2021).**

Sleep disorders are conditions that result in changes in the way of sleep. A sleep disorder can affect overall health, safety and quality of life. Signs and symptoms include

excessive daytime sleepiness, irregular breathing or increased movement during sleep, an irregular sleep and wake cycle and difficulty falling asleep. Unusual or bothersome movements or experiences during sleep are also possible. Having an irregular sleep and wake cycle is another symptom of sleep disorders (**Ballot et al., 2021**).

Massage reduces stress in the body and stimulates hormones result in a good night's sleep or at least sleep that is less interrupted. Massage therapy increases the release of serotonin and melatonin – hormones that allow the body to reset its circadian rhythm. Serotonin is needed for the body to produce melatonin which induces sleep. The release of serotonin and reduction of cortisol can improve mood and reduce stress levels. The healing touch of a massage therapist stimulates circulation while lowering the heart rate and blood pressure. **(Arslan et al., 2021).**

Maternity health nurse have an important role to promote health by providing women during post menopause with sleep problem with support and knowledge needed. In addition, nurses can promote the quality of care, effectively manage therapies to enhance quality of life and decrease pain to avoid other diseases. The nurses should also give the woman time to express feelings about symptoms and care (**Bender et al., 2019**).

Significance of the study:

Sleep disorder is one of the most common complaints observed in the menopausal period and affects 40 to 60% of women. ALSO, increased sleep onset insomnia and an increased prevalence of obstructive sleep apnea. Hormonal changes alone are not likely to provide a complete explanation for the relationship between sleep difficulty and menopause. Insomnia in women can be secondary to hot flashes, mood disorders, psychosocial factors, obstructive sleep apnea, restless legs syndrome or other medical comorbidities (**Ozcan et al., 2021).**

According to study done at Port Said University, in Egypt, found that 73.5% reported poor sleep quality, 50.4% of participants were either obese or overweight (**Mohamed et al., 2022**). Also, another study in Aswan University Hospital in Egypt reported that, more than 30% of women had initiation insomnia and the vast majority had difficulty in maintaining sleeping. The proportion of women with insufficient length of sleep was significantly higher among postmenopausal women (**Amany et al., 2020**).

At USA women experience sleep disturbance during the menopause range from 28 to 63%. Differences in the ways sleep issues are common, with sleep disorders affecting 39 to 47 percent of perimenopausal women and 35 to 60 percent of postmenopausal women. The most common sleep problems reported by women going through menopause include hot flashes, insomnia, sleep-disordered breathing, and other mood and sleep disorders (**Priyasanthi et al., 2020**).

Aim of the study:

This study aimed to evaluate the effect of back message on sleep Pattern among menopausal women.

Research hypothesis:

Applying back massage would improve sleep pattern among menopausal women.

Subjects and Method

Study design:

Quasi- experimental study was utilized to fulfill the aim of the study.

Setting:

This study was conducted at Obstetric and Gynecological outpatient clinic affiliated to the Benha University hospital in Benha City.

Sampling:

Sample Type: A purposive sample.

Sample Size: This sample size was (120) menopausal women who attended outpatient clinics affiliated to the Benha University Hospital at the time of data collection and following the inclusion criteria as:

1. Women who have nature menopause.
2. Women who have sleep disturbance.
3. Women's age range between 45-60 years old.
4. Women who agree to participate in the study.
5. Women free from any medical or psychological problem.

Sample technique: The researcher visited the study setting, introduced herself to participants and explained the aim of the study briefly to women who already fulfilled the inclusion criteria, the visit was repeated 2 times weekly from 9-12 pm until the predetermined size of sample completed.

Tools of data collection:

Two tools were used for data collection as following:

Tool (I): Interviewing questionnaire sheet it was designed by the researcher after reviewing related literature and adopted from **(Filosa et al., 2022).** It was written in simple Arabic language and divided into two parts:

Part (1): Socio-demographic data of women as: (age, education level , marital status, Residence , Job , Type of family , Number of children, exercise and taking stimulants).

Part (2): Women's knowledge about menopause, sleep pattern and back massage as:

A-Women's knowledge regarding menopause and consisted of 8 items.

B-Women's knowledge about nature of sleep and insomnia which consisted of 8 items.

C-Women's knowledge about back massage and consisted of 5 items.

2- Tool (II): Pittsburgh sleep quality index (PSQI):

It was adopted from **(Manková., 2021).** PSQI is an effective instrument used to measure the quality and patterns of sleep it consists of 19 self-rated items and seven clinically derived domains of sleep difficulties in the past month, it contains seven domains as: (Subjective sleep quality sleeps latency (i.e., how long it takes to fall asleep), sleep duration, sleep efficiency(i.e., the percentage of time in bed that one is asleep), sleep disturbance, use of sleep medication, and daytime dysfunction) Each of these domains is weighted equally on a 0-3.

Validity of the tools:

Tools of data collection were reviewed by panel expertise of three Obstetric and Gynecological Nursing at Benha University specialists to ascertain clarity, relevance and applicability of tools. Pre testing of the tools revealed that the tool was clear, feasible and there was no ambiguity in the language.

Reliability of the tools:

The reliability was done by Cronbach's Alpha coefficient test which revealed that: the internal consistency of knowledge assessment questionnaire was 0.81; the internal consistency of attitude assessment scale was 0.79.

Ethical considerations:

Approval of the Faculty ethics committee for scientific research was obtained for the fulfillment of the study.

The aim of the study was explained to each woman before applying the tools to gain cooperation and confident.

An oral consent was obtained from each woman to participate in the study.

No physical, social or psychological risk of participants.

All information gathered was treated confidentially and used only for the purpose of the study. Each woman was informed about total time of the study. The women were free to withdraw from the study at any time.

Pilot study:

The pilot study was conducted on 10% (12 women) of total sample and 3weeks of total time of data collection to evaluate applicability of the study and reliability and clarity of tools which used for data collection, no modification was done in the tools of data collection, so women included in the pilot study were included in the total sample size.

Field work:

The study was carried out from the start of January to the end of June(2022) covering six months the researcher was obtained essential administrative permission from the director of Benha University hospital. The study was conducted at the previous mentioned setting three days per week starting from 9AM to 1 PM until the sample was completed. The researcher conducted the study by the following phase:

Assessment phase

At the beginning of interview the researcher introduced herself, greeted with each women, explained the aim of the study to obtain their cooperation and assurance, the researcher collected data from menopausal women by using tool (I) to assess menopausal knowledge.

Assess the condition of sleep for menopausal women.

Then the researcher collected data by using Pittsburgh sleep quality index (tool II) as (pretest) to assess sleep pattern of menopausal women.

The average time required for completion of the questionnaire was around (10-15) minutes.

Each woman was assessed individually. Each woman was reassured that obtained information used only for the purpose of the study. This phase consider as pretest.

Implementation phase

The researcher teach women how to apply back massage with self-applied or with supportive person.

Firstly the researcher explained for the women how to do back massage alone: (Arslan et al., 2021)

The researcher teaches the women how to apply self-back massage by using video on mobile, illustrated figure with Arabic clarified burchure.
-Place a tennis ball or foam roller between back and a wall.
Roll on the area that hurts with the ball or roller.-
- Move hips and bend knees to roll the ball or roller over the sore areas of lower back.
- Continue leaning heavily into the ball or roller against the wall to apply pressure to the areas.

-To apply more pressure into muscles, lay down on back on the floor and place the ball or roller under the sore areas.
 -Use the ball or roller massage technique for no more than 5 minutes per day.

Secondary the researcher explained for the women how to do back massage with supportive person: (Choudhary et al., 2021).
If women without supportive person the researcher apply back massage for menopausal as supportive person.

-Ask the women to lay down flat on stomach. Choose a firm, comfortable surface such as (a firm bed, padded floor, or massage table).

-Then turned head to either side and positioned arms as comfortable.

-The researcher (supportive person) squeeze a few drops massage oil onto hands (Start with a small amount of oil and use more during the massage if need).

-Apply upward pressure from the low back outside the spine with both hands.

-Place whole hands flat on the woman lower back near hips, on either side of the spine.

- Presses upward toward middle back firmly with entire hand, then lift hands and do again, starting at lower back.

- Apply pressure to muscles only. This technique is called effleurage and is commonly used to start loosening muscles during a massage. ---Continue this technique for 5-10 minutes. Use fingertips to press from the center of the spine out toward hips. Find the base of the woman's spine with fingertips.

- Move fingertips to the outside of spine and press down, and then move fingers outward along hips while applying pressure.

Evaluation phase: After one month of back massage application, the researcher evaluated effect of back massage on promoting sleep pattern by using the post test – questionnaire which was the same format of pre- test. During this month the researcher telephoned the women weekly to assess sleep pattern to evaluate the effect of back massage.

Statistical analysis:

Data were verified prior to computerized entry. The Statistical Package for Social Sciences SPSS version (20.0) was used. Descriptive statistics were applied (e.g., mean, standard deviation, frequency, and percentages). Test of significance independent t-test and chi square was applied to test the study hypotheses.

A statistically significant difference was considered at p-value $p \leq 0.05$

A highly statistically significant difference was considered at p-value $p \leq 0.001$

Results:

Table (1) reveals that nearly two thirds of studied women (60.0%) aged from 50 < 55 with mean ±SD (53.02±3.04) and more than two fifth of them (42.5%) had secondary education. Regarding marital status nearly three quarters of women (71.7%) were married and more than two thirds of them (69.2%) were housewives in addition, nearly two thirds (65.0%) were from rural area. The current study also revealed that more than half of women (52.5) had 3:<5 children moreover the majority of them (86.7&84.2) didn't practice exercise.

Figure (1) shows that 35.8% of studied women had adequate knowledge about menopause, sleep pattern and back massage at pre which improved to 78.3% post intervention phases.

Table (2) reveals that there was significant improvement in sleep quality among studied sample post program intervention compared to pre-program in all items of sleep quality as (subjective sleep quality, sleep latency, sleep duration, sleep efficiency, sleep disturbance, use of sleep medication and daytime dysfunction).

Figure (2) shows that 35.8% of studied women had adequate knowledge about sleep pattern and back massage at pre which improved to 79.2% post intervention phases.

Table (3) shows that there was positive statistically correlation between studied women knowledge and their sleep quality (p<0.001**).

Table (1): Distribution of the studied women according to their socio-demographic characteristics (n=120).

Socio-demographic characteristics		No	%
Age (years)	45 < 50	14	11.7
	50 < 55	72	**60.0**
	≥ 55	34	28.3
	Mean ±SD	53.02±3.04	
Educational level	Illiterate	6	5.0
	Read and wright	13	10.8
	Basic education	33	27.5
	Secondary education	51	**42.5**
	University education	17	14.2
Marital status	Married	86	**71.7**
	Single	7	5.8
	Widow	16	13.3
	Divorced	11	9.2
Occupation	House wife	83	**69.2**
	Employee	37	30.8
Residence	Rural	78	**65.0**
	Urban	42	35.0
Type of family	Extended	69	**57.5**
	Nuclear	51	42.5
Number of children	<3 children	38	31.7
	3-5 children	63	**52.5**
	≥5 children	19	15.8
Practice exercises	Yes	16	13.3
	No	104	**86.7**
Times of practicing exercises (n= 16)	1-2/week	5	31.3
	3-4/week	8	**50.0**
	>4/week	3	18.7
Caffeine intake as tea , coffee	Yes	101	**84.2**
	No	19	15.8
Times of caffeine intake / day (n= 101)	Once/day	16	15.8
	Twice/day	23	22.8
	Three or more time/day	62	**61.4**

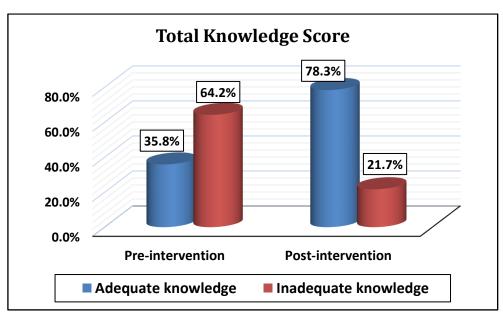**Effect of Back Message on Sleep Pattern among Menopausal Women**

Figure (1): Percentage distribution of studied women regarding their total knowledge score about menopause, sleep pattern and back massage at pre and post intervention phases (n = 120).

Table (2): Distribution of studied women according to knowledge about menopause (n=120)

Knowledge Items	Pre-intervention				Post-intervention				X^2	P-value
	Correct answer		Incorrect answer or don't know		Correct answer		Incorrect answer or don't know			
	No	%	No	%	No	%	No	%		
Meaning of menopause	**33**	**27.5**	87	72.5	**100**	**83.3**	20	16.7	75.7	0.000**
Normal age of menopause	53	44.2	67	55.8	99	82.5	21	17.5	37.9	0.000**
Causes of menopause	42	35.0	78	65.0	93	77.5	27	22.5	44.0	0.000**
Physiological symptoms of menopause	37	30.8	83	69.2	95	79.2	25	20.8	56.6	0.000**
Sexual symptoms of menopause	52	43.3	68	56.7	92	76.7	28	23.3	27.7	0.000**
Psychological symptoms of menopause	47	39.2	73	60.8	92	76.7	28	23.3	34.6	0.000**
Complications of menopause	30	25.0	**90**	**75.0**	91	75.8	**29**	**24.2**	62.0	0.000**
Drugs for reducing menopausal symptoms	39	32.5	81	67.5	97	80.8	23	19.2	57.0	0.000**

Chi-square test (x^2); P-value>0.05 (NS);*P-value ≤0.05 (S); ** P-value ≤0.001 (HS).
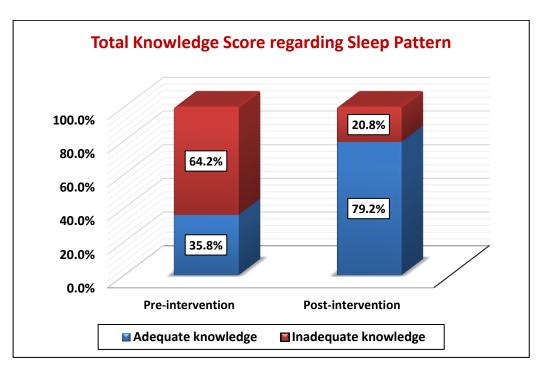
Figure (2): Percentage distribution of studied women regarding total knowledge about sleep pattern at pre and post intervention phases.

Table (3): Correlation between total quality of sleep, and total knowledge Score among studied women (n=120).

Variables	Total quality of sleep			
	Pre-intervention		**Post-intervention**	
	r	**P-value**	**r**	**P-value**
Total knowledge score	0.84	0.000**	0.68	0.000**

**A Highly Statistical significant p ≤ 0.001

Discussion:

The current study revealed that nearly two thirds of studied women aged from 50: < 55 with mean ±SD (53.02±3.04). From the researcher point of view this might be interpreted that, this is the most common menopausal age and also, the selected women according to inclusion criteria was from 45 to 60 years old. In addition, more than two thirds of them had secondary education and this might be due to most people prefer secondary education in the early decades due to its low cost and for early graduation. The study was congruent with **Abd Allah, (2018)** who studied "Massage Therapy for Alleviating Menopausal Transitional Period Symptoms among women employed at Suez Canal University Hospital" and illustrated that the mean age of studied mothers was 49.05±3.98

and nearly half of them had secondary level of education. The study was also agreed with **Valiensi et al., (2019)** who studied "Sleep quality and related factors in postmenopausal women" and concluded that participants' mean age was 54.6 ± 4.4 and nearly half of them had secondary education.

Regarding studied women marital status, the present study showed that nearly three quarters of women were married also; about two thirds were from rural area. This may because the study was conducted at outpatients' clinic at Benha city and most people come from surrounding village and rural areas to get their medical services. The study was in the same line with **Elkins et al., (2021)** who studied "Hypnosis intervention for sleep disturbance: Determination of optimal dose and method of delivery for postmenopausal women" and revealed that nearly two thirds of their participants were married and more than half of them were from rural areas. Conversely, the study was disagreed with **Malik et al., (2021)** who studied "Health promoting lifestyle behaviors and sleep quality among post-menopausal women in Pakistan" and revealed that more than two thirds of participants were from urban areas.

Concerning women knowledge about menopause, the present study showed that there was a highly statistically significant difference among studied women regarding knowledge of menopause at pre and post intervention phases. For example, more than one quarter of studied women had correct knowledge regarding meaning of menopause pre-program intervention which improved to the majority of them at post intervention phase. From the researcher point of view, this could be due to the effect of clear, illustrative

and comprehensive educational intervention that improved women's knowledge.

The study was supported by **Larroy et al., (2020)** who studied "The impact of perimenopausal symptomatology, sociodemographic status and knowledge of menopause on women's quality of life" and showed that there was significant improvement in women knowledge regarding menopause post intervention. The study was also congruent with **Taebi et al., (2018)** who studied "Strategies to improve menopausal quality of life" and revealed that there was significant improvement in women knowledge regarding menopause post intervention this might be due to education, especially during menopause increase awareness and has a positive effect on the healthcare and improvement of health behaviors. Besides increasing the awareness, participating in educational classes improve women's attitude too.

Concerning total knowledge regarding menopause. The result of the present study revealed that there was highly statistically significant difference between women knowledge post program intervention compared with pre-intervention, additionally two thirds of studied women had inadequate knowledge regarding menopause pre-intervention that decreased to less than one quarter of them post intervention.

The current study illustrated that there was significant improvement in sleep quality among studied sample post program intervention compared to pre-program in all items of sleep quality as subjective sleep quality, sleep latency, sleep duration, sleep efficiency, sleep disturbance, use of sleep medication and daytime dysfunction, From the researcher point of view, this might be due

to the effect of massage therapy as it stimulates parasympathetic nervous system and promotes relaxation, decrease insomnia, improve sleeping pattern, increase alertness and ability to concentrate, as well as less anxiety, and decrease stress related insomnia also, might be due to the effect of program in reducing bad habits that interfere with good sleep quality such as avoiding excessive caffein intake, avoid day sleep for along period and also, enhance performing exercise such as walking at least 30 minutes every day, taking warm shower before bed time, having hot drink and maintaining adequate, quite sleeping environment.

The study was agreed with **Abd Allah, (2018)** who illustrated that massage therapy group had significant improvement of sleep quality, increasing sleeping time, decrease night wake up, decrease sleep disturbance and dependence in sleep medication, massage therapy help in many menopausal transitional period symptoms as decreasing in the frequency of hot flushes attacks and night sweats, decrease of menstrual pain, decrease at all urinary symptoms and dyspareunia which improve sleep quality and reduce sleep disturbance in study group compared with control group. The study was also supported by **Drake et al., (2019)** who studied "Treating chronic insomnia in postmenopausal women: a randomized clinical trial comparing cognitive-behavioral therapy for insomnia, sleep restriction therapy, and sleep hygiene education" and revealed that large reductions in insomnia symptoms after intervention, improvements in sleep latency, sleep maintenance, and overall insomnia symptomatology were sustained reflecting durable treatment effects. Massage therapy produced large improvements in most sleep parameters, indicating appropriate for improving menopausal insomnia.

The current study revealed that there was a positive highly statistically correlation between studied women knowledge &sleep quality from the researcher point of view, this might be interpreted that higher knowledge increase women awareness and information about the best practice measures that promote sleep and reduce insomnia such as massage, exercise performance and maintaining sleep rituals so that, result in adequate sleeping pattern and reducing sleep disturbance. The current study was supported with **Lu et al., (2020)** who showed that there was highly statistically significant correlation between women knowledge regarding menopausal period and importance of massage therapy and total sleep quality pre and post intervention application as when women knowledge increased results in adequate sleep quality. The study was also supported by **Drake et al., (2019)** who illustrated that there was highly statistically significant correlation between women total knowledge regarding post-menopausal period and sleep quality.

In the view of the above mentioned finding, hypothesis which stated that" Applying back massage improve sleep pattern among menopausal women was supported"

Conclusion

Back massage had positive effect on menopausal women as promoting sleep pattern. Menopausal women who applied back massage would be more satisfied post intervention than pre intervention. Applying back massage would improve quality of sleep pattern among menopausal women post intervention than pre intervention. Therefore, the study hypothesis was supported and aim of the study was achieved.

Recommendations:

o Developing periodic awareness program for menopausal women to enhance their knowledge regarding effect of back massage on promoting sleep pattern.
o Designing and implementing instructional guidelines and pre sure regarding benefits of back massage on promoting sleep pattern among menopausal women.

Limitation of the study:

Occasionally, the waiting place of the obstetrics and gynecological outpatient clinic was crowded and noisy, which required more time and effort to conduct the study.

References:

Abd Allah I. (2018).Massage Therapy for Alleviating Menopausal Transitional Period Symptoms among Women employed at Suez Canal University Hospital. IOSR Journal of Nursing and Health Science (IOSR-JNHS). 7(1) 23-35

Amany O. , Hoda A. , Shazly B. & Omar T. (2020). Patterns of sleep disorders in women, Egyptian Journal of Bronchology volume 13, pp.767–773.

Arslan, G., Ceyhan, Ö., & Mollaoğlu, M. (2021). The influence of foot and back massage on blood pressure and sleep quality in females with essential hypertension: a randomized controlled study. Journal of human hypertension, 35(7), pp. 627-637

Ballot, O., Ivers, H., Ji, X., & Morin, C. M. (2021). Sleep Disturbances During the Menopausal Transition: The Role of Sleep Reactivity and Arousal Predisposition. Behavioral Sleep Medicine. 20(4), pp.1-13

Bender, M., L'Ecuyer, K., & Williams, M. (2019). A clinical nurse leader competency framework: concept mapping competencies across policy documents. Journal of Professional Nursing. 35(6). pp. 431-439.

Bimonte, A., Bernaud, E., & Koebele, V. (2021). Menopause, hormone therapy and cognition: maximizing translation from preclinical research. Climacteric, pp. 1-9.

Choudhary S., Jelly P., Mahala P., & Mery A. (2021). Effect of back massage on relieving pain during labour: a systemic review. International Journal of Reproduction, Contraception, Obstetrics and Gynecology, 10(6), pp.2466-2473

Dillaway H. (2020). Living in Uncertain Times: Experiences of Menopause and Reproductive Aging. The Palgrave Handbook of Critical Menstruation Studies, pp.253-268.

Drake, L., Kalmbach, A., Arnedt J. T., Cheng P., Tonnu, V., Cuamatzi-Castelan A., & Fellman-Couture C. (2019). Treating chronic insomnia in postmenopausal women: a randomized clinical trial comparing cognitive-behavioral therapy for insomnia, sleep restriction therapy, and sleep hygiene education. Sleep, 42(2), zsy217.

Elkins G., Otte J., Carpenter J. S., Roberts L., Jackson L. S., Kekecs Z., & Keith T. Z. (2021). Hypnosis intervention for sleep disturbance: Determination of optimal dose and method of delivery for postmenopausal women. International Journal of Clinical and Experimental Hypnosis, 69(3), pp. 323-345.

Filosa J., Omland P. M., Hagen K., Langsrud K., Brenner E., Knutsen, A. J. & Sand, T. (2022). Validation of questionnaires

for restless legs syndrome in the general population: the Trøndelag Health Study (HUNT). Journal of Sleep Research, 31(5). e13571.

Larroy C., Marin Martin C., Lopez-Picado (2022). The impact of perimenopausal symptomatology, sociodemographic status and knowledge of menopause on women's quality of life. Arch Gynecol Obstet 301, 1061–1068 (2020). https://doi.org/10.1007/s00404-019-05238-1

Lu X., Liu L., & Yuan R. (2020). Effect of the information support method combined with yoga exercise on the depression, anxiety, and sleep quality of menopausal women. Psychiatria Danubina, 32(3-4), pp. 380-388.

Malik M., Hussain A., & Hashmi A. (2021). Health promoting lifestyle behaviors and sleep quality among post-menopausal women in Pakistan. Systematic Reviews in Pharmacy, 12(8), pp. 2934-2940.

Manková D., Dudysová D., Novák J., Fárková E., Janků K., Klíková M., & Kopřivová J. (2021). Reliability and Validity of the Czech Version of the Pittsburgh Sleep Quality Index in Patients with Sleep Disorders and Healthy Controls. BioMed Research International, 2021

Mohamed M., Hafez E., A Ebeid I., & Elalem O. (2022). Prevalence of complementary and alternative medicine use and its associated factors among menopausal women in Egypt. International Egyptian Journal of Nursing Sciences and Research, 3(1), pp: 455-469.

Özcan H., Çakmak S., & Salman E., (2020): Complementary and Alternative Medicine Methods Used for Sleep Disturbance in Menopause, Journal of Turkish Sleep Medicine, 3(1), pp: 207-213.

Priyasanthi Y., Deepa M., & Sudha R. (2020): Effectiveness of back massage on pain, fatigue and quality of sleep among post cabg patients. TNNMC Journal of Medical & Surgical Nursing, 8(1), pp: 19-23.

Taebi M, Abdolahian S, Ozgoli G, Ebadi A, Kariman N(2018). Strategies to improve menopausal quality of life: A systematic review. J Educ Health Promot. 6;7:93. doi: 10.4103/jehp.jehp_137_17. PMID: 30079364; PMCID: PMC6052783.

Valiensi, M., Belardo, A., Pilnik S., Izbizky G., Starvaggi, P., & Branco C. C. (2019). Sleep quality and related factors in postmenopausal women. Maturitas, 123, pp. 73-77.

تأثير تدليك الظهر على نمط النوم بين السيدات فى سن الإياس

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سن الإياس هو الوقت الذي يشير إلى نهاية الدورة الشهرية لدى السيدات ويتم تشخيصه بعد أن تمكث المرأة 12 شهرًا بدون فترة حيض. يمكن أن يحدث انقطاع الطمث عند السيدات في الأربعينيات أو الخمسينيات من العمر. هدفت الدراسة إلى تقييم تأثير رسالة الظهر على نمط النوم بين السيدات في سن الإياس. تم استخدام دراسة شبه تجريبية لتحقيق هدف الدراسة. أجريت هذه الدراسة في العيادة الخارجية لأمراض النساء والتوليد التابعة لمستشفى بنها الجامعي. أجريت الدراسة على 120 سيدة في فترة انقطاع الطمث. تم جمع البيانات باستخدام أداتين الأداة الأولى : - أداة ورقة استبيان المقابلة الأداة الثانية : مؤشر جودة النوم في بيتسبرغ (PSQI) حيث كشفت النتائج الى ان كان هناك فرق ذو دلالة إحصائية بين العينة المدروسة فيما يتعلق بمعرفة سن الإياس ونمط النوم وتدليك الظهر قبل وبعد التدخل. كان هناك تحسن كبير في النوم بين العينة المدروسة بعد برنامج التدخل مقارنة ببرنامج ما قبل البرنامج في جميع بنود جودة النوم. الخلاصة: خلصت الدراسة إلى أن تدليك الظهر كان له تأثير إيجابي على السيدات بعد انقطاع الطمث لأنه يعزز نمط النوم ، وتطبيق تدليك الظهر من شأنه أن يحسن نوعية نمط النوم بين السيدات بعد انقطاع الطمث بعد التدخل قبل التدخل. التوصيات: تطوير برنامج توعية دوري للسيدات في سن الإياس لتعزيز معرفتهن بأثر تدليك الظهر في تعزيز نمط النوم.