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THE EFFECT OF USING LEVANDER WIPES AND PILLOWS ON SLEEP PROBLEMS IN MENOPAUSE

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Abstract

The study was conducted to evaluate the effect of using lavender wipes and pillows on sleep problems of women in menopause as a semi-experimental pre-test/posttest. This study was completed with 52 women out of 60 applied to a family health center in the eastern Black Sea region Turkey with sleep complaints in the November-December 2017. In this study Pittsburg Sleep Quality Index and Insomnia Severity Index and lavender oil were employed. The woman was asked to puff a lavender oil spray twice on their wipe and place it in the uppermost pocket of their clothes nearest to the nose, keep it there until bed time, and sleep with a lavender scented pillow for 15 days. Statistical significance was determined between pre-test and post-test in total PSQI and subgroups ($p < 0.05$). The study shows that the use of lavender increases sleep quality.

Keywords: Lavender oil, menopause, nursing, sleep quality, Turkey.

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1. Introduction

Menopause period causes many problems among women due to hormonal changes (Eichling & Sahni, 2005). In literature, it is argued that age of complaints related to the beginning of irregular menopause is generally after the age of 45; which indicates that women spend one third of their lives during menopause and post-menopause period in today's world in which life expectancy at birth has been prolonged (Proverawati, 2010; Işık and Vural, 2001; Hur, Yang, & Lee, 2007). Menopause is a complicated and difficult process for some women with biological, psychological, social and cultural effects (Evlice, Tamam, & Karata, 2002). During menopause period; there are numerous problems such as difficulty with concentration, nervousness, sexual problems, hot flashes and sleeplessness (Magowan, 2000; Smith, Perlis, & Park, 2002). Although there are certain signs of this period, women may suffer from different complaints (Gupta, 2009; Tokuç, Kaplan, Balık, & Gül, 2006). Sleep disorders, experienced during menopause period, is one of the most common complaints by women (Chung & Tang, 2006). Particularly interrupted night sleep and difficulty in falling asleep are main sleep disorders (Freedman & Roehrs, 2007). Women who face sleep disorders do not have a quality sleep and therefore they may be more nervous owing to impaired sleep quality (Cheng, Hsu, & Wang, 2008). In many evidence-based studies, efficacy of aromatherapy use in treatment has been proven (Newton, Buist, & Keenan, 2002). Especially undesired effects of pharmacological methods used in sleep treatment have made individuals to turn to nature and natural products and as a result, complementary treatment methods have gained currency (Kılıç, Şentürk, & Göriş, 2015). Complementary practices are –in general sense- those approaches that support standard treatment, provide symptom control and enhance patients' wellbeing and care (Kılıç et al., 2015). The study was conducted to evaluate the effect of using lavender wipes and pillows on sleep problems of women in menopause as a semi-experimental pre-test/post-test.

2. Research Questions

1- Using lavender wipes and pillows are an effect of insomnia among menopause women
2- Using lavender wipes and pillows are an effect of subjective sleep quality among menopause women
3-Uusing lavender wipes and pillows are an effect of sleep latency among menopause women
4- Using lavender wipes and pillows are an effect of sleep duration among menopause women
5- Using lavender wipes and pillows are an effect of conventional sleep activity among menopause women
6- Using lavender wipes and pillows are an effect of sleep disorder among menopause women
7-Uusing lavender wipes and pillows are an effect of sleep drug among menopause women
8-Uusing lavender wipes and pillows are an effect of daytime dysfunction among menopause women

3. Purpose of the Study

The study was conducted to evaluate the effect of using lavender wipes and pillows on sleep problems of women in menopause as a semi-experimental pre-test/posttest.

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4. Research Methods

This study was completed with 52 women out of 60 applied to a family health center in the eastern Black Sea region Turkey with sleep complaints in the November-December 2017. In this study; Pittsburg Sleep Quality Index (Buysse, Reynolds, & Monk, 1991; Ağargün, Kara, & Anlar, 1996) and Insomnia Severity Index (Aslan et al., 2006) and lavender oil were employed. The women voluntarily participated in the study and they did not mind using products with lavender. None of the participating women used antidepressants, nor were they allergic. Those women who were in menopause for 1-3 years, presented sleep complaints and had a score below 22 according to insomnia severity index insomnia were recruited for the study. They did a survey including questions about socio-demographic characteristics and Pittsburg Sleep Quality Index (PSQI) sleep scale as a pre-test. Afterwards, each woman was asked to puff a lavender oil spray twice on their wipe and place it in the uppermost pocket of their clothes nearest to the nose, keep it there until bed time, and sleep with a lavender scented pillow for 15 days. At the end of this period, the PSQI scale was applied again. Participants were eligible to participate in the program if they agreed to the use of aromatherapy and they had no allergy to aromatherapy in accordance with a skin test. The experimental protocol was approved by the Institutional Review Board (IRB) at the family health center. All subjects agreed to participate in the study and signed the informed consent form of the IRB. No adverse effects occurred during the experiment and the data of all participants were available for analysis.

5. Findings

When socio-demographic characteristics of the participant women were looked at, it was identified that women were aged 43+-5.9 years, 51.9% of them had primary school graduation, 84.6% of them did not work, 80.8% of them were married, 46.2% of them had 3 children and 78.8% of them had demonstrated these complaints since the beginning of menopause and it disturbed women more and more, 61.5% of these women never received help on menopause 71.1% of them watched TV in order to fall asleep (Table 1).

Table 01. Socio-demographic characteristics of the participant women

	n	**%**
Educational Status		
Illiterate	7	51.9
Primary school	27	21.2
High school	11	13.5
University	7	13.5
Employment Status		
Employed	8	15.4
Unemployed	44	84.6
Marital Status		
Married	42	80.8
Unmarried	10	19.2
Number of children		
1-2	28	53.8
≥3	24	46.2
Time Insomnia Complaints		

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Right after menopause	41	78.8
2-3 years later after menopause	11	21.2
Receiving help/support for sleep disorders?		
Yes	20	38.5
No	32	61.5
*Interventions against sleep problems		
Reading	11	21.1
Warm bath	33	63.5
Watching TV	37	71.1
Listening to music	16	30.8
	Mean	SD
Age	43	5.9
Severity of insomnia	16	0.79

*Note: more than one answer was given

Pre-test total PSQI score was 9.8±3.9, posttest PSQI score was 5.15±1.5; subjective sleep quality pre-test 1.53±0.5- post test 1.07±0.3; sleep latency pretest 2.17±0.89- post test 0.98±0.61; sleep duration pretest 1.38±0.95-post test 0.84±0.57; conventional sleep activity pre-test 1.11±1.2- posttest 0.57±0.66; sleep disorder pretest 1.73±0.59-posttest 1.00±0.44; sleep drug use pretest 0.61±1.14-posttest 0.23±0.46 and daytime dysfunction pre-test 1.34±0.98-posttest 0.46±0.60. Statistical significance was determined between pre-test and post-test in total PSQI and subgroups ($p < 0.05$). The study shows that the use of lavender increases sleep quality (Table 2).

Table 02. Assessment of PSQI and sub-groups in terms of Lavender practice in pre-test and post-test

	Pre-test Mean+-SD	**Post-test Mean+-SD**	**t**	**p**
PSQI	9.8±3.94	5.15±1.53	10.965	0.000
Subjective sleep	1.53±0.5	1.07±0.35	5.773	0.000
Sleep latency	2.17±0.89	0.98±0.61	9.172	0.000
Sleep duration	1.38±0.95	0.84±0.57	0.290	0.037
Conventional sleep activity	1.11±1.21	0.57±0.66	5.778	0.000
Sleep disorder	1.73±0.59	1.00±0.44	8.415	0.000
Sleep drug use	0.61±1.14	0.23±0.46	14.530	0.042
Daytime dysfunction	1.34±0.98	0.46±0.60	8.415	0.000

6. Conclusion

Complementary treatments cover a wide range of treatment alternatives such as massage, touch therapy, therapeutic touch, aromatherapy, reflexology and acupuncture (Kılıç, et al., 2015). This study indicated that aromatherapy affected sleep of women in menopause positively. Plenty of studies in literature argue that use of alternative and complementary treatments such as aromatherapy are effective when they are used in adjuvant to drug therapy or before drug therapy is started (Newton, et al., 2002). A study on menopause suggested that treatment given with aromatherapy was more effective than treatment given with massage therapy alone in terms of healing (Taavoni, Darsareh, & Joolaee, 2013). In a controlled experimental study done to explore use of lavender in menopause hot flash, decreasing effect of lavender in hot flash was observed (Kazemzadeh, Nikjoi, Rostemregad, & Norouzi, 2016). In the study of Hertz

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(2009), effect of aromatherapy upon people's physical and behavioral health was mentioned and reasons to use it for regulating quality of life were explained. There are many studies in literature that investigated effects of aromatherapy upon sleep problems among patients diagnosed with cancer (Pearson, Johnson, & Nahin, 2006; Bertisch, Wells, Smith, & McCarthy, 2012; Şahin & Aşcıoğlu, 2013). In treating many diseases, lavender as a complementary therapy is widely used not only as a perfume but also as an oil in massage treatment (Darsareh, Taavoni, Joolaee, & Haghani, 2012). The results of the present study suggest that lavender may positive effect on insomnia symptom of women. This is in accordance with previous study which reported improvement of insomnia through aromatherapy and massage therapy for fibromyalgia (Demirbağ & Erci, 2014). Many studies have found that aromatherapy improves psychological symptoms such as anxiety, depression and induces more relaxed states in young and middle-aged women (Buckle, 2003). In another study demonstrates that both massage and aromatherapy massage can improve psychological symptoms in postmenopausal women (Taavoni et al., 2013).

In sum, this study suggests that as an aromatherapy practice, having lavender wipes during daytime and sleeping with lavender pillows during night time demonstrated positive effects among women in menopause with sleep problems. This study showed that is once again proved that complementary treatment is necessary in all kinds of treatment modalities. Moreover, this study is also important in terms of explaining significant changes in all sub dimensions of sleep. In addition that the result of this study are useful for using this interventions as a primary treatment for insomnia. Also health professionals like nurses and doctors can be advice lavender to menopausal women for insomnia treatment. In order to make use of this practice used during menopause popular, it is recommended that the study be undertaken with larger groups and different geographical regions/countries.

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