

## THE EFFECT OF GIVING LAVENDER AROMATHERAPY ON INSOMNIA IN PERIMENOPAUSEE WOMEN

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### ABSTRAK : PENGARUH PEMBERIAN AROMATERAPI LAVENDER TERHADAP INSOMNIA PADA WANITA PERIMENOPAUSE

Pendahuluan : Menurut National Foundation tahun 2015, wanita lebih banyak mengalami insomnia dibandingkan pria, 57% wanita mengalami tanda gejala insomnia beberapa kali dalam seminggu. Angka kejadian insomnia meningkat lebih cepat pada ibu yang berusia di atas 40 tahun. Sekitar 40% wanita usia 40-54 tahun mengeluhkan insomnia, hanya 20% pria pada kelompok usia yang sama yang mengeluhkan insomnia.

Tujuan penelitian ini adalah menganalisis pengaruh aromaterapi lavender terhadap insomnia pada wanita perimenopause.

Metode : Jenis penelitian ini menggunakan penelitian kuantitatif dengan desain penelitian quasi eksperimen dengan one group pretest-posttest design. Sampel diambil sebanyak 30 responden dengan teknik purposive sampling dan menggunakan kuesioner KSBPJ-IRS. Analisis data univariat dan bivariat.

Hasil: Hasil penelitian sebelum pemberian aromaterapi lavender didapatkan skor rata-rata 18,30 dan setelah pemberian aromaterapi lavender skor rata-rata 13,53 dengan hasil uji statistik p value  $0,000 < 0,05$  yang berarti responden mengalami penurunan tingkat insomnia.

Simpulan: Hasil p value  $0,000 < p (0,05)$  artinya  $H_0$  ditolak dan  $H_a$  diterima, artinya ada pengaruh yang signifikan pemberian aromaterapi lavender terhadap tingkat insomnia.

Saran : Untuk wanita perimenopause dianjurkan menggunakan aromaterapi lavender sebanyak 4-5 tetes agar dapat menurunkan tingkat insomnia.

Kata Kunci : Aromaterapi Lavender, Perimenopause, Insomnia

### ABSTRACT

Introduction : According to the National Foundation in 2015, women experience insomnia more than men, 57% of women experience signs of insomnia symptoms several times a week. The incidence of insomnia increases more rapidly in mothers over the age of 40 years. About 40% of women aged 40-54 years complain of insomnia, only 20% of men in the same age group complain of insomnia.

The purpose of this study was to analyze the effect of lavender aromatherapy on insomnia in perimenopausal women.

Methods This type of research uses quantitative research with a quasi-experimental research design with one group pretest-posttest design. Samples were taken as many as 30 respondents with purposive sampling technique and using the KSBPJ-IRS questionnaire. Univariate and bivariate data analysis.

Results: The results of the study before giving lavender aromatherapy got an average score of 18.30 and after giving lavender aromatherapy an average score of 13.53 with statistical test results p value  $0.000 < 0.05$ , which means that respondents experienced a decrease in insomnia levels.

Conclusion: The results of p value  $0.000 < p (0.05)$  means that  $H_0$  is rejected and  $H_a$  is accepted, which means that there is a significant effect on giving lavender aromatherapy to the level of insomnia.

Suggestion: For perimenopausal women it is recommended to use lavender aromatherapy as much as 4-5 drops in order to reduce the level of insomnia.

Keyword : Perimenopause, Insomnia, Lavender Aromatherapy

### INTRODUCTION

Before the menopause phase occurs, the premenopause phase is usually preceded, where in

this premenopause phase there is a transition from the fertile period to the absence of fertilization. Most women begin to experience premenopausal

symptoms in their 40s and peak at the age of 50, namely the onset of menopause. Premenopausal symptoms occur due to decreased estrogen levels causing symptoms that greatly interfere with the activities of women's lives, even threaten household happiness, problems that arise are the loss of fertility and increased changes that cause anxiety and worry in women. Problems that arise as a result of premenopause is called premenopausal syndrome. Problems that occur in the form of physical and psychological problems. Some women do not understand and do not even know that they are in this period (Proverawati, 2020).

According to the World Health Organization (WHO), it is estimated that by 2025 the number of elderly women will increase from 107 million to 373 million. This is supported by the increasing life expectancy of women and they are more active during menopause. According to the Central Statistics Agency (BPS), in 2025 it is estimated that Indonesia will increase and reach 60 million women during menopause. The Asian region is the region with the highest number of women experiencing early menopause symptoms in the world, 70-80% in Europe, 60% in America, 57% in Malaysia, 18% in China and 10% in Japan and Indonesia (WHO, 2020).

The number of elderly people in Indonesia is currently 27.1 million people or almost 10% of the total population. In 2025, it is estimated that the number of elderly people can increase by 33.7 million (11.8%) (Ministry of Health, 2021). In 2021, there are 8 provinces that have entered the old population structure, namely the percentage of the elderly population is greater than ten percent. The eight provinces are DI Yogyakarta (15.52%), East Java (14.53%), Central Java (14.17%), North Sulawesi (12.74%), Bali (12.71%), South Sulawesi (11.24%), Lampung (10.22%), and West Java (10.18%). According to gender, the number of elderly women is more than elderly men, namely 52.32% compared to 47.68%. According to their place of residence, there are more elderly people in urban areas than in rural areas, namely 53.75% compared to 46.25% (Susenas, 2021).

Based on the results of a preliminary study conducted in Sumber Rejo Village, the number of premenopausal women in Sumber Rejo Village was 272 and based on the results of initial interviews with 30 people said that they had difficulty sleeping at night.

Insomnia is a sleep disorder in which a person finds it difficult to sleep. Sleep disturbances that occur are related to sleep quality such as ineffective sleep (Hidayah & Alif, 2016). According to the

National Foundation in 2015 more women experience insomnia than men, 57% of women experience signs of insomnia symptoms several times a week. The incidence of insomnia increases more rapidly in mothers over the age of 40 years. Around 40% of women aged 40-54 years complain of insomnia, only 20% of men in the same age group complain of insomnia (Gunadarma, 2016 in Rahmi, 2020).

Sleep disturbances are the main complaint of women who are going through the menopausal transition. This has an impact on quality of life, mood, productivity and physical health, especially in women who experience severe insomnia and is associated with impaired sleep function (Baker, F. C., De Zambotti, M., Colrain, I. M., & Bei, B, 2018).

Aromatherapy is one way of treating disease by using odors that generally come from plants and smell good, savory and delicious called essential oils. Some of the fragrance oils used in aromatherapy because of their versatile properties are langon kleri, eucalyptus, geranium, lavender, lemon, peppermint, petitgrain, rosemary, tea tree. Of these types of oil, lavender oil is the most popular essential oil (Andria, 2014).

Based on the explanation above, the researcher formulated the problem in this study "Is there an effect of giving lavender aromatherapy to insomnia in perimenopausal women in Sumber Rejo village, Tumijajar sub-district, Tulang Bawang Barat district in 2022".

## RESEARCH METHOD

This type of research is quantitative research with Quasy Experiment with one group pretest-posttest design. The population in this study was perimenopausal women aged 40-50 years in Sumber Rejo Village, Tumijajar District, Tulang Bawang Barat Regency as many as 272 respondents and a sample of 30 perimenopausal women with inclusion criteria, namely: 1) Perimenopausal women aged 40-50 years, 2) Patients who were willing become respondents, 3) able to follow the given therapy, 4) cooperative respondents, 5) perimenopausal women who experience insomnia. The exclusion criteria for this study are: 1) Respondents who have flu or cough, 2) Respondents who have respiratory diseases (asthma, shortness of breath, etc.), 3) Respondents who take sleeping pills. The test used is the Paired Sample T-Test.

**RESULTS AND DISCUSSION****Normality test****Table 1**  
**Normality Test**

Insomnia Level		N	P-Value
Intervention	Pre-test	30	0,86
	Post-test	30	0,133

In table 1 above, the results of the p-value normality test at the level of insomnia in the pre-test case group of 0.86 and post-test 0.133 > 0.05, which means that the data is normally distributed, so a t-test can be performed.

**Characteristics of Respondents**

From table 2 above, it can be seen that the general characteristics of perimenopausal women in Sumber Rejo Village, Tumijajar District, Tulang Bawang Barat Regency in 2022, by looking at the most age range from 40-45 years old as many as 18 respondents (60.0%), the most education is school education. Upper Middle School (SMA) as many as 12 respondents (40%) and the average occupation of

**Univariate Analysis****Insomnia Level Pre-Test****Table 3****Insomnia Levels in Perimenopausal Women Before and After Giving Lavender Aromatherapy**

Insomnia Level	N	Mean	SD	SE	Min-Max
Pre-test	30	18,30	4,699	0,858	10-25
Post-test	30	13,53	4,439	0,810	7-22

From table 3 above, it can be seen that the level of insomnia in perimenopausal women before being given lavender aromatherapy therapy in Sumber Rejo Village, Tumijajar District, Tulang Bawang Barat Regency in 2022, with a Mean 18.30, a min value of 10 with a mild insomnia category as many as 9 respondents and a maximum value of 25. with severe insomnia category as many as 6 respondents.

The level of insomnia in perimenopausal women after being given lavender aromatherapy therapy in Sumber Rejo Village, Tumijajar District, Tulang Bawang Barat Regency in 2022, with a mean of 13.53, a min value of 7 with a non-insomnia category as many as 9 respondents and a max value of 22 with a moderate insomnia category as many as 9 respondents.

the respondents is private sector and housewife (IRT) with a total of 9 respondents each (30.0%).

**Table 2****General Characteristics of Perimenopausal Women in Sumber Rejo Village, Tumijajar District, Tulang Bawang Barat Regency in 2022**

Characteristics	Freq.	Percentage
Age		
40-45 tahun	18	60 %
46-50 tahun	12	40 %
Education		
Sarjana	9	30%
SMA	12	40%
SMP	6	20%
SD	3	10%
Job		
IRT	9	30%
PNS	6	20%
Swasta	9	30%
Tani	6	20%

**Bivariate Analysis**

Based on the results of the analysis in table 4, the score of the KSBPJ-IRS value in perimenopausal women before being given lavender aromatherapy with a mean of 18.30 with a minimum score of 10 was included in the category of mild insomnia as many as 9 respondents and a maximum value of 25 entered the category of severe insomnia as many as 6 respondents and after being given aromatherapy lavender saw a decrease in the mean score to 13.53 with a minimum value of 7 being categorized as not insomnia as many as 9 respondents and a maximum value of 22 being in the moderate insomnia category as many as 9 respondents.

Table 4  
Effect of Effectiveness of Giving Lavender Aromatherapy on Perimenopausal Women

Analysis	N	Mean	Min-Max	Corr.	Sig.
Pre-test	30	18,30	10-25	0,969	0,000
Posttest	30	13,53	7-22		

Based on the results of the analysis using paired t-test statistical tests paired samples with the SPSS version 25 program, the p-value = 0.000 (<0.05) which means that there is an effectiveness of giving lavender aromatherapy in Sumber Rejo Village, Tumijajar District, Tulang Bawang Barat Regency in 2022. The results of the paired sample t-test statistic test that  $r$  count = 0.969, which is positive, then  $H_0$  is rejected and  $H_a$  is accepted, which means that the more often lavender aromatherapy is given, the success in reducing insomnia itself also increases.

This study is in line with one of the related studies entitled "Effectiveness of Acupressure and Lavender Aromatherapy Against Insomnia in Perimenopausal Women in Pancuranmas Village, Magelang". effective in treating insomnia in perimenopausal women.

The results of this study are also in line with research conducted by Nathazia Meylana on the effectiveness of acupressure and lavender aromatherapy on insomnia in perimenopausal women in Pancuranmas Village, Magelang which showed results of insomnia data before and after aromatherapy was given. The average result of insomnia before being given lavender aromatherapy treatment was 16.90 including the category of mild insomnia and after being given aromatherapy the average result of insomnia was 8.90 the category of not insomnia. The difference between before and after the aromatherapy treatment was 8.00 with  $p = 0.000$ . This means that the  $p$  value < 0.05 which indicates that there is a significant difference between before and after being given aromatherapy.

The results of this study are supported by research conducted by Yeni Tri Lestari on the effect of giving lavender aromatherapy to the reduction of insomnia in the elderly at UPT Panti Werdha Mojopahit Mojokerto which shows results with the effect of lavender aromatherapy on the sleep quality of the elderly at the Griya Asih Lawang Nursing Home and Tresno Mukti Turen Age. Malang, which shows sleep quality score data in the control group before and after administration of lavender flower aromatherapy for one week showed a very slight decrease, not significant ( $p = 0.317$ ). On the other hand, the treatment group showed a significant decrease ( $p=0.007$ ).

Lavender aromatherapy helps in meeting the sleep needs of perimenopausal women both in quantity and quality. Lavender aromatherapy can reduce insomnia because lavender has a mild floral aroma and is an aromatherapy essential that is known to have sedative and anti-neurodepressive effects. Lavender aromatherapy also has the main ingredients, namely linalool and linalool acetate which are able to relax and relax the working system of the nerves and tense muscles. Inhaling the scent of lavender increases the frequency of alpha waves and this state is associated with relaxing (relaxation) so it can treat insomnia. Lavender also helps balance the body's health which is very useful in relieving headaches, premenstrual syndrome, stress, tension, muscle spasms and heart regulation (Andria, 2014). By smelling the aroma of essential oils from the sense of smell, it can stimulate our emotional memory by giving physical reactions in the form of behavior. So that this therapy can be used as a way to reduce insomnia in perimenopausal women.

Thus, the conclusion from this study is that lavender aromatherapy is proven to provide calm, relaxation and comfort that affects the body's physiology so that it helps in reducing insomnia levels. In perimenopausal women, inhaling lavender aromatherapy can help in overcoming the symptoms of insomnia disorders that are often experienced by perimenopausal women.

## CONCLUSION

There is an effect of giving lavender aromatherapy on the level of insomnia in perimenopausal women in Sumber Rejo Village, Tumijajar District, Tulang Bawang Barat Regency in 2022, namely there is an improvement in the level of insomnia from before being given therapy, namely 15 respondents experienced moderate insomnia, 9 respondents had mild insomnia and 6 respondents had insomnia. severe insomnia to 12 respondents had mild insomnia, 9 respondents had moderate insomnia and 9 respondents did not have insomnia.

## SUGGESTIONS

For perimenopausal women are advised to use lavender aromatherapy as much as 4-5 drops in order to reduce the level of insomnia experienced. For health workers, it is suggested that this research

can be used as a non-pharmacological intervention in addition to relaxation and distraction techniques in improving sleep quality and reducing insomnia levels in perimenopausal women.

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