

The Effectiveness Of Lavender Aromatherapy In First Trimester Pregnant Women With Emesis Gravidarum At TPMB Megawati In 2023

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Abstract.

Background: Pregnant women with emesis gravidarum who use acupressure can reduce or even avoid the use of anti-nausea drugs which have the potential to have side effects. This can be considered as an effective non-pharmacological alternative in treating emesis gravidarum. Purpose of Writing: Knowing the Effectiveness of Lavender Aromatherapy in First Trimester Pregnant Women with Emesis Gravidarum at TPMB Megawati in 2023. Research Method: quasi-experimental research with pretest posttest with control group design. The independent variable in this study was lavender aromatherapy and the dependent variable was Emesis Gravidarum. taken by purposive sampling. Data analysis was carried out univariately and bivariately, to find out the difference in the Emesis Gravidarum score in the intervention and control groups in each group using wicoxo. Research Results The research results are known Asymp. Sig (2 – Talled) has a value of 0.000 because $0.000 < 0.05$, it can be concluded that the hypothesis is accepted. This means that there is a difference before and after giving lavender aromatherapy. The research results are known Asymp. Sig (2 – Talled) has a value of 1,000 because $0.000 > 0.05$, it can be concluded that the hypothesis is rejected. This means that there is no difference before and after in the control group.

Keywords: Lavender Aromatherapy in Pregnant Women and Emesis Gravidarum.

I. INTRODUCTION

Emesis Gravidarum is excessive nausea and vomiting that occurs during pregnancy, usually starting in the first trimester and may continue into the second trimester. This condition affects about 50-80% of pregnant women and usually peaks between 9-12 weeks of pregnancy. The causes of Emesis Gravidarum are not fully understood, but hormonal factors are believed to play an important role. Increased levels of the hormone hCG (human chorionic gonadotropin) and estrogen during pregnancy can affect the vomiting center in the brain, which causes symptoms of nausea and vomiting. Symptoms of Emesis Gravidarum can vary, ranging from mild nausea to repeated vomiting that interferes with daily activities. Some women may also experience a loss of appetite and significant weight loss. Bella Puspa Sari. (2021). According to WHO (2019), Emesis Gravidarum is a common condition in pregnant women worldwide. There is no specific data regarding the prevalence of Emesis Gravidarum issued by WHO. However, some sources say that Emesis Gravidarum affects around 50-80% of pregnant women. The prevalence of Emesis Gravidarum can also vary depending on factors such as age, history of previous pregnancies, and genetic factors. In addition, the severity of symptoms can also vary between pregnant women. Emesis Gravidarum usually occurs in the first trimester of pregnancy and tends to subside after the second trimester. However, this condition can vary between each pregnant woman. During pregnancy, levels of the hormone hCG (human chorionic gonadotropin) increase significantly. This hormone is produced by the placenta and is responsible for maintaining pregnancy in the early stages. The increase in this hormone is believed to contribute to the nausea and vomiting experienced by some pregnant women.

Levels of the hormones estrogen and progesterone also increase during pregnancy. These two hormones have an effect on the digestive system and can cause increased sensitivity in the digestive tract, which in turn can cause nausea and vomiting. (Mariza & Ayuningtias, 2019). According to Retnowati, Y. (2019). Factors that cause Emesis Gravidarum are due to hormonal, occupational, parity and psychosocial factors. Psychological factors that influence pregnancy from within the mother are the background of the mother's personality and are influenced by hormonal changes that occur during pregnancy, namely the hormones adrenaline and norepinephrine will increase. The hormone norepinephrine causes dysregulation of the body's biochemistry, resulting in physical tension in pregnant women. Psychological problems may

predict some women to experience nausea and vomiting in pregnancy, or worsen symptoms they already have. This can be caused by fear and anxiety. According to Manuaba, the feeling of nausea and vomiting tends to be more severe in the first pregnancy. Emotionally, mothers who are pregnant for the first time tend to be more sensitive to anxiety and fear, which eventually upset the stomach. According to Mariza & Ayuningtias (2019) explaining the management of nausea and vomiting in pregnancy depends on the severity of the symptoms. Treatment ranges from mild changes in diet to approaches with antimietic medication, hospitalization, or parenteral nutrition.

Treatment consists of pharmacological and non-pharmacological therapy. Pharmacological therapy is carried out by administering antimietics, antihistamines, and corticosteroids. Non-pharmacological therapy is carried out by regulating diet, emotional support, aromatherapy, acupressure and ginger. Lavender aromatherapy has been used traditionally to relieve the symptoms of emesis gravidarum, which includes the nausea and vomiting that occurs during pregnancy. One of the main ingredients in lavender essential oil is linalool. Linalool is the most abundant compound in lavender and has been known to have strong relaxing properties. These properties can help calm the nervous system and relieve nausea and vomiting associated with emesis gravidarum. Besides linalool, lavender essential oil also contains linalyl acetate. These compounds also have relaxing and calming properties and can help relieve symptoms of nausea and vomiting during pregnancy. The combination of linalool and linalyl acetate in lavender can give a better effect in reducing emesis gravidarum. Bella Puspa Sari. (2021). The effect of lavender aromatherapy on emesis gravidarum according to Bella Puspa Sari's research. (2021). mention the stimulation of aroma receptors in the nose. When you inhale the aroma of lavender essential oil, the aroma particles can stimulate receptors in the nose which are associated with the nervous system. This stimulation can affect the neural pathways associated with nausea and vomiting, as well as affect the production of certain neurotransmitters involved in the process. In addition, lavender essential oil is believed to have a relaxing effect on the nervous system.

Compounds such as linalool and linalyl acetate in lavender can affect the activity of the brain and nervous system, reducing tension and stress which can exacerbate the symptoms of emesis gravidarum. By relieving tension and stress, nausea and vomiting associated with pregnancy can be reduced. The anti-inflammatory effects of compounds like geraniol and terpinen-4-ol in lavender may also contribute to reducing the symptoms of emesis gravidarum. Inflammation can affect the digestive system and trigger nausea and vomiting. With anti-inflammatory properties, these compounds can help relieve inflammation in the digestive system, reducing the symptoms of nausea and vomiting associated with pregnancy. According to Haniyah, S. (2021). Apart from direct mechanisms at the level of the nervous and digestive systems, lavender aromatherapy can also provide benefits through psychological effects. The soothing aroma and resulting relaxation can help reduce anxiety and improve overall mood. By reducing stress and improving mental well-being, symptoms of nausea and vomiting during pregnancy can be reduced. From several theories that mention the efficacy and advantages of aromatherapy in reducing the level of emesis gravidarum, therefore, researchers are interested in proving the efficacy of aromatherapy by reducing the level of emesis gravidarum in pregnant women. Current research is the Effectiveness of Lavender Aromatherapy in First Trimester Pregnant Women with Emesis Gravidarum at TPMB Megawati

II. METHODS

This study was conducted to determine the effectiveness of lavender aromatherapy in first trimester pregnant women with Emesis Gravidarum. This research was conducted at TPMB Megawati during April-May 2023. This research was a quasi-experimental study with pretest posttest with control group design. The independent variable in this study was lavender aromatherapy and the dependent variable was Emesis Gravidarum. taken by purposive sampling. Data analysis was carried out univariately and bivariately, to find out differences in Emesis Gravidarum level scores in the intervention and control groups in each treatment group using the Paired t-test, while to compare the differences in the mean scores of the intervention and control groups for the two treatments using the Independent t-test.

III. RESULT AND DISCUSSION

A. Univariate analysis

1. Frequency Distribution of Emesis Gravidarum Levels Before and After in the Intervention Group (Lavender Aromatherapy) at TPMB Megawati in 2023

Table 1. Frequency Distribution of Emesis Gravidarum Levels Before and After in the Intervention Group (Lavender Aromatherapy) at TPMB Megawati in 2023

Emesis Gravidarum Level	Before		After	
	(f)	(%)	(f)	(%)
Light	0	0	14	100
Intermediate	14	100	0	0
Total	14	100	14	100

Based on table 1 above, it can be seen that the frequency distribution of 14 respondents in the intervention group before administration of lavender aromatherapy, the majority of moderate emesis were 14 respondents (100%) after giving lavender aromatherapy, the majority of mild emesis gravidarum levels were 14 (100%)

2. Frequency Distribution of Emesis Gravidarum Levels Before and After in the Control Group (Without Lavender Aromatherapy) at TPMB Megawati in 2023

Table 2. Frequency Distribution of Emesis Gravidarum Levels Before and After in the Control Group (Without Lavender Aromatherapy) at TPMB Megawati in 2023

Emesis Gravidarum Level	Initial assessment		After 12 hours	
	(f)	(%)	(f)	(%)
Light	2	14,3	2	14,3
Intermediate	12	85,7	12	85,7
Total	14	100	14	100

Based on table 2 above, it can be seen that the frequency distribution of 14 respondents in the control group (without giving lavender aromatherapy) at the beginning of the examination, the majority of moderate emesis gravidarum levels were 12 respondents (85.7%) and emesis gravidarum 2 respondents (14.3%) after 12 hours the majority of moderate emesis gravidarum levels were 12 respondents (85.7%) and emesis gravidarum 2 respondents (14.3%)

B. Normality test

Table 3. One Sample Kolmogrov Smirnov

		Before	After	Beginning	After 12 hours
N					
Normal Parameters	Mean	14	14	14	14
	Std. Deviation	2,00	1,00	1,86	1,86
	Absolute	0,00	0,00	0,363	0,363
Most Extreme Differences	Positive			0,510	0,510
	Negative			0,347	0,347
Tes Statistik				-,510	-,510
Asymp. Sig. (2-tailed)				0,00	0,00

Based on Table 3 shows the asymp value. sig. for pretest score data is $0.000 < 0.05$ or declared not normally distributed and posttest $0.00 < 0.05$ or declared not normally distributed. Because the results of the study used non-parametric statistical tests through the Wilcoxon test as the basis for taking the results of hypothesis testing, it can be said that they are not normal.

C. Results of Bivariate Analysis

The Effectiveness of Lavender Aromatherapy in First Trimester Pregnant Women with Emesis Gravidarum at TPMB Megawati in 2023

Table 4. Intervention and Control Group Wilcoxon Test

Intervention Group		N	Mean Rank	Sum Of Rank	Sig. (2-tailed)
After	Negative Ranks	14	7,50	105,00	
Before	Positive Ranks	0	0.00	0.00	0,000

Ties		0			
Total		14			
Control Group		N	Mean Rank	Sum Of Rank	Sig. (2-tailed)
After	Negative Ranks	0	10,50	0.00	
Before	Positive Ranks	0	0.00	0.00	1,000
Ties		14			
Total		14			

Based on the Wilcoxon test, the majority of the 14 respondents obtained the intervention group, namely the negative ranks or reduction of emesis gravidarum before and after was 14, the mean rank was 7.50 and the sum rank was 105.00 meaning that all 14 respondents experienced a reduction in the level emesis gravidarum before and after giving lavender aromatherapy and there was no positive assessment of the rank before and after or the value of ties or similarity between before and after. The research results are known Asymp. Sig (2 – Tailed) has a value of 0.000 because $0.000 < 0.05$, it can be concluded that the hypothesis is accepted. This means that there is a difference before and after giving lavender aromatherapy. In the control group, the majority of the average value of 14 respondents experienced a tie value of 14, meaning that there was a similarity in values before and after so that no negative average rank or reduction before and after or positive rank or increase before and after was found. know Asymp. Sig (2 – Tailed) has a value of 1,000 because $0.000 > 0.05$, it can be concluded that the hypothesis is rejected. This means that there is no difference before and after giving lavender aromatherapy. So the conclusion from the results of this study was the Effectiveness of Lavender Aromatherapy in First Trimester Pregnant Women with Emesis Gravidarum.

Discussion

1. Discussion of Univariate Analysis

The results of this study show the frequency distribution of 14 respondents in the intervention group before giving lavender aromatherapy, the majority of moderate emesis was 14 respondents (100%) after giving lavender aromatherapy, the majority of mild emesis gravidarum levels were 14 (100%). Whereas in the control group (without giving lavender aromatherapy) at the beginning of the examination the majority of moderate emesis gravidarum levels were 12 respondents (85.7%) and emesis gravidarum 2 respondents (14.3%) after 12 hours the majority of moderate emesis gravidarum levels were 12 respondents (85.7%) and emesis gravidarum 2 respondents (14.3%). Emesis gravidarum is one of the earliest symptoms, and causes the most stress for pregnant women, even though emesis gravidarum is physiological, emesis gravidarum is not a mild disorder, it can occur in 85% of pregnant women, can last all day, and can persist throughout pregnancy. The cause of nausea and vomiting is considered a multi-factorial problem. Related theories are hormonal factors, the vestibular system, digestion, psychology, hyperolfaction, genetics, and evolutionary factors. Emesis gravidarum is related to HCG levels. HCG stimulates the production of estrogen in the ovaries. Estrogen is known to increase nausea and vomiting (Lestari, 2019) Emesis gravidarum is a natural and common symptom in the first or early trimester of pregnancy. Nausea usually occurs in the morning or morning sickness, but it can occur any time of the day and at night. The cause of emesis gravidarum is due to increased estrogen, progesterone, and the release of Human Chorionic Gonadotropin (HCG) according to Manuaba (2013 in Fauziah, et al (2022) According to Rizki, et al. (2022).

Aromatherapy can be used as a solution to overcome nausea and vomiting in pregnant women in the first trimester. Aromatherapy uses essential oils which are useful for improving physical and psychological conditions so that they become better. When essential oils are inhaled, the molecules enter the nasal cavities and stimulate the limbic system in the brain. The limbic system is the area that influences emotion and memory and is directly linked to the adrenals, pituitary gland, hypothalamus and other parts of the body that regulate heart rate, blood pressure, stress, respiration and hormone balance. According to Rahayu, 2018 Lavender aromatherapy provides advantages over other types of aromatherapy, including being affordable, easy to buy, safe to use, fast to work on, and practical because it doesn't require sophisticated equipment. One of the safest oils is lavender oil. One of the safest oils is lavender oil. When placed on electrical equipment that functions as a vaporizer, aromatherapy can be used by inhaling. Then, to produce water vapor, put two to five drops of aromatherapy oil into the vaporizer with 10 cc of water. By combining 4

drops of aromatherapy with 10 ml of water, the air can be mixed with aromatherapy to create a fragrant and fresh aroma for breathing. When people breathe in, aromatherapy has a calming, soothing, invigorating impact that can help pregnant women with morning sickness.

2. Discussion of Bivariate Analysis

The results of this study indicate that the intervention group is known as Asymp. Sig (2 – Tailed) has a value of 0.000 because $0.000 < 0.05$, it can be concluded that the hypothesis is accepted. This means that there is a difference before and after giving lavender aromatherapy. While the control group is known Asymp. Sig (2 – Tailed) has a value of 1,000 because $0.000 > 0.05$, it can be concluded that the hypothesis is rejected. This means that there is no difference before and after giving lavender aromatherapy. The results of this study are in line with research by Fauziah, et al (2022) which explains that Lavender Aromatherapy is effective for reducing nausea and vomiting in pregnant women at PMB Fauziah Hatta Palembang. It is hoped that pregnant women who experience nausea and vomiting will use lavender aromatherapy. The same thing was done by Rizki, et al. (2022) who stated that there was a decrease in the intensity of nausea and vomiting before and after being given lavender. So that it can be said that Lavender Aromatherapy is effective in reducing the intensity of nausea and vomiting. In his research, he argued that the factors that can trigger nausea and vomiting in pregnant women are increased levels of progesterone, estrogen and human chorionic gonadotropin (HCG).

The increase in the hormone progesterone causes the smooth muscles of the gastrointestinal tract to relax, thereby reducing gastric motility and slowing gastric emptying performance. HCG can also stimulate the thyroid gland which can cause nausea and vomiting. In addition, the results of this study were also supported by Gorontalo, et al (2023) which explained in its entirety that after Nausea's nursing actions were carried out on both clients, it was found that one client performed non-pharmacological techniques giving lavender aromatherapy, the level of nausea decreased while the second client performed non-pharmacological techniques giving lavender aromatherapy. still feel nauseous vomiting about 2 times a day. Based on the theories and opinions of previous researchers, the researchers assume that the content of lavender essential oil which contains the compound linalyl acetate which is also found in lavender has antispasmodic properties that can help relieve tension in the muscles and stomach and reduce nausea. Therefore, in this study it can be concluded that aromatherapy, especially with the aroma of lavender, can be used as a type of non-pharmacological treatment for pregnant women who experience emesis gravidarum.

IV. CONCLUSION

Based on the results and discussion of the research results, it can be concluded that:

1. The frequency distribution of 14 respondents in the intervention group before giving lavender aromatherapy, the majority had moderate emesis, 14 respondents (100%) after giving lavender aromatherapy, the majority had mild emesis gravidarum, 14 (100%)
2. The frequency distribution of 14 respondents in the control group (without giving lavender aromatherapy) at the beginning of the examination the majority of moderate emesis gravidarum levels were 12 respondents (85.7%) and emesis gravidarum 2 respondents (14.3%) after 12 hours the majority of moderate emesis gravidarum levels were 12 respondents (85.7%) and emesis gravidarum 2 respondents (14.3%)
3. The Wilcoxon test obtained in the intervention group the majority of the average values of 14 respondents, namely negative ranks or reduction of emesis gravidarum before and after was 14, the mean rank was 7.50 and the sum rank was 105.00 meaning that 14 people all respondents experienced a reduction in the level of emesis gravidarum before and after giving lavender aromatherapy and found no positive ratings before and after or ties or similarity between before and after. The research results are known Asymp. Sig (2 – Tailed) has a value of 0.000 because $0.000 < 0.05$, it can be concluded that the hypothesis is accepted. This means that there is a difference before and after giving lavender aromatherapy

4. In the control group, the majority of the average value of 14 respondents experienced a tie value of 14, meaning that there was a similarity in values before and after so that no negative average rank or reduction before and after or positive rank or increase before and after was found. The results of the study are known to be Asymp. Sig (2 – Tailed) has a value of 1,000 because $0.000 > 0.05$, it can be concluded that the hypothesis is rejected. This means that there is no difference before and after in the control group

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