

The effect of lavender aromatherapy on the frequency of decreasing emesis gravidarum in the 1st trimester pregnant women

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ABSTRACT

Emesis gravidarum is a complaint that is often experienced by pregnant women in the first trimester of pregnancy. This happens because it is caused by various changes in a woman's body during pregnancy. One of the occurrences of emesis gravidarum is because there is an increase in the HCG hormone. Emesis gravidarum that is not treated immediately will result in hyperemesis gravidarum which will be dangerous for the pregnant woman. The aim of this research was to determine the effect of Lavender aromatherapy on reducing emesis gravidarum in first trimester pregnant women at Peaktik Mandiri Midwife (PMB) Choirul Mala. This type of research is one group pre-post test design. The population in this study were all pregnant women at PMB Choirul Mala, namely 30 people. Sampling in this study used a purposive sampling technique so that 15 respondents were obtained. Collecting data in this study using a questionnaire. Analysis of research data includes univariate analysis and bivariate analysis using the Wilcoxon test. The results of the study showed that before being given therapy, most of the 60% of respondents had severe levels of nausea and vomiting and after being given therapy, the majority of 66.7% of respondents had mild levels of nausea and vomiting. Based on the results of statistical analysis, it was found that the p value = 0.000, meaning that there was an effect of providing lavender aroma therapy on reducing the frequency of emesis gravidarum in the first trimester of pregnancy. It can be concluded that lavender aroma therapy has proven to be effective in reducing the frequency of nausea and vomiting in pregnant women.

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INTRODUCTION

Emesis gravidarum is a common complaint experienced by pregnant women (Fiaschi et al., 2019). The presence of pregnancy results in an increase in hormones in women such as an increase in the

hormones estrogen, progesterone and the release of the human chorionic gonadotropin placenta (Maghami et al., 2020).

According to the World Health Organization (WHO, 2019), the number of cases of emesis gravidarum reaches 12.5% of all pregnancies in the world. According to the 2019 Ministry of Health, the number of pregnant women with cases of emesis gravidarum in Indonesia, namely during 2019, out of 2,203 maternal pregnancies, there were 543 pregnant women suffering from emesis gravidarum, in the early period of pregnancy (Cangemi & Kuo, 2019). So, it can be estimated that the average incidence of emesis gravidarum cases in 2019 was 67.9%. Where, 60 to 80% of these events occur in primigravida mothers, and 40 to 60% of these occur in pregnant women with multigravidas (Mohr et al., 2021)

According to (Kia et al., 2014) that, the impact of emesis gravidarum if it is not handled properly, it will cause intractable and persistent symptoms of nausea and vomiting that occur in early pregnancy, resulting in dehydration, electrolyte disturbances, or deficiency nutrients. Patients who experience emesis gravidarum, with vomiting reaching up to 10 times in 24 hours, will be bad for the health of pregnant women (Ebrahimi et al., 2021). This can affect the mother's daily activities. Management of nausea and vomiting in pregnancy depends on the severity of the symptoms (Guttuso et al., 2021). Treatment can be carried out by means of pharmacology and non-pharmacology (Miroslav et al., 2020). Nonpharmacological therapy can be done by giving aromatherapy (Hamzeh et al., 2020). Giving aromatherapy is a treatment using the power of plants. Aromatherapy uses essential oils, which contain substances for plants to use to defend themselves against external attacks, such as pests or insects (Abbasijahromi et al., 2019). Various types of aromatherapy can be used as a non-pharmacological treatment to reduce the intensity of emesis gravidarum for mothers, one of which is the use of Lavender (Michihata et al., 2019). Lavender essential oil is an alternative medicine, based on pure aromatherapy plant extracts (Fearrington et al., 2019). Based on the results of an initial survey that the researchers conducted on 4 pregnant women in their first trimester at Choirul Mala's Independent Midwife Practice by conducting interviews with the frequency of nausea and vomiting, the results showed that overall pregnant women complained of nausea and vomiting in the first trimester of pregnancy and the management of nausea and vomiting. what is done is to adjust the nutritional pattern, namely eating little but in frequent frequency and the mother also consumes nausea and vomiting drugs obtained during pregnancy visits. Based on the results of interviews between researchers and health workers (midwives), it is known that there has not been any non-pharmacological management of nausea and vomiting in pregnant women using Lavender aromatherapy (Rosalinna, 2019). The implication of this research is that there is a theory which states that lavender aromatherapy can reduce nausea and vomiting because the content contained in lavender can provide a feeling of comfort when inhaled so that in practice midwives can recommend giving lavender aromatherapy to reduce nausea and vomiting in pregnant women.

Based on the phenomena and background above, the researchers were interested in further researching the effect of giving Lavender aromatherapy to the frequency of reducing emesis gravidarum in first trimester pregnant women at the Independent Midwife Practice (PMB) Choirul Mala Palembang City in 2023.

RESEARCH METHOD

This type of research is Quasy Experiment with pretest-posttest design. Data was collected before and after the intervention was given (Karaman et al., 2019). This research consisted of one group, namely the intervention group which was given Lavender aroma therapy intervention. The study began with a pre-test to identify the frequency of nausea and vomiting in first trimester pregnant women before being given intervention. The pre-test was carried out by filling out a questionnaire. Then the intervention group was given Lavender aromatherapy intervention. After that, intervention was given again to complete the post-test using a

questionnaire. Lavender aromatherapy is given when you wake up using 4-8 drops of Lavender essential oil and 100 ml of water. A steam device is available in the form of an electric diffuser. Lavender aromatherapy steam is produced from a mixture of approximately 100-150 ml of water with 4-8 drops of Lavender essential oil. This tool can be used for a maximum of 6 hours. Lavender aromatherapy is given for 30 minutes at a distance of 15-25 cm then a diffuser is lit with lavender aroma and placed near the mother with the aim of reducing nausea and vomiting so that it can cause a comfortable sensation so that the mother feels comfortable.

This research was conducted at the Independent Midwife Practice (PMB) Choirul Mala in August 2023. The population in this study were all first trimester pregnant women with complaints of nausea and vomiting at the Independent Midwife Practice (PMB) Choirul Mala in August 2023, namely 30 people. The sampling technique used in this study was a purposive sampling technique, namely 15 people were sampled in this study. Data analysis used to process the results of this research is the Wilcoxon test.

RESULTS AND DISCUSSIONS

Characteristics of Respondents

Based on data on respondent characteristics, frequency distribution results were obtained with the characteristics of age, education and occupation of respondents at the Independent Midwife Practice (PMB) Choirul Mala, Palembang City in 2023.

Table 1. Characteristics of respondents

Characteristics		Frequency (n)	Percentage (%)
Mother's Age	19-26	7	46,7
	27-35	8	53,3
Education	High School	6	40
	Diploma	5	33,4
	Bachelor	4	26,6
Jobs	House Wife	6	40
	Self Employed	5	33,4
	Teacher	2	13,3
	Laborer	2	13,3

(Source: Primary Data, 2023)

Based on the table above, it can be seen that the age of pregnant women is 27-35 years old, namely 8 respondents (53.3%) with high school education status as many as 6 respondents (40%) while for work there are more mothers who do not work, namely 6 respondents (40%).

Characteristics of respondents before being given Lavender Aromatherapy

Identifying the level of nausea and vomiting in first trimester pregnant women before being given Lavender aroma therapy.

Table 2. Characteristics of respondents before being given lavender aromatherapy

No	Nauseous vomit	Frequency	Percentage (%)
1	Light	0	0
2	Currently	6	40
3	Heavy	9	60
	Total	15	100

(Source: Primary Data, 2023)

Based on table 2 above, it shows that the majority of pregnant women at the Choirul Mala Independent Midwife Practice (PMB) before being given Lavender aroma therapy had a severe intensity of nausea and vomiting, 9 (60%) respondents.

Characteristics of respondents after being given Lavender Aromatherapy

To identify the level of nausea and vomiting in first trimester pregnant women after being given Lavender aromatherapy.

Table 3. Characteristics of respondents after being given lavender aromatherapy

No	Nauseous vomit	Frequency	Percentage (%)
1	Light	10	66,7
2	Currently	5	33,3
3	Heavy	0	0
Total		15	100

(Source: Primary Data, 2023)

Based on table 3 above, it shows that the majority of pregnant women at the Choirul Mala Independent Midwife Practice (PMB) after being given Lavender aroma therapy had a mild intensity of nausea and vomiting, 10 (66.7%) respondents.

Cross tabulation of the effect of giving lavender aromatherapy to the frequency of reducing emesis gravidarum in first trimester pregnant women

Table 4. Cross tabulation effect of lavender aromatherapy on the frequency of reducing emesis gravidarum in first trimester pregnant women

level of nausea and vomiting	Frekuensi		P value
	Pre	Post	
Light	0 (0%)	10 (66,7%)	0,000
Currently	6 (40%)	5 (33,3%)	
Heavy	9 (60%)	0 (0%)	
Total	15 (100%)	15 (100%)	

(Source: Primary Data, 2023)

Based on table 4 above, it shows that before giving Lavender aromatherapy, 9 (60%) respondents had severe levels of nausea and vomiting. Then, after being given Lavender aromatherapy, 10 (66.7%) respondents had mild levels of nausea and vomiting and 5 (33.3%) had moderate levels of nausea and vomiting. In the pre and post, there was an effect of giving Lavender aromatherapy on the frequency of nausea and vomiting in first trimester pregnant women at the Independent Midwife Practice (PMB) Choirul Mala, Palembang City in 2023 with a P-Value of 0.000.

The research results showed that the average intensity of the respondents' nausea and vomiting was reduced after being given the Lavender aromatherapy intervention. Before administering Lavender aromatherapy, 9 (60%) respondents had severe nausea and vomiting. Then after being given Lavender aromatherapy, 10 respondents (66.7%) had mild nausea and vomiting and 5 (33.3%) moderate nausea and vomiting. Pre and post there is a significant relationship to the level of nausea and vomiting in pregnant women. Trimester I with a P-value of $0.000 \leq 0.05$, it can be concluded that there is an effect of giving Lavender aromatherapy on the frequency of nausea and vomiting in pregnant women in the first trimester.

This is in line with the results of research (Cangemi & Kuo, 2019), the average value of nausea and vomiting before the intervention was 8.5. Meanwhile, after the intervention was carried out in the experimental group, there was a decrease to 1.4 on the second day. From these results it appears that there was a decrease every day in the experimental group. From the results of the T-Test Test, it was obtained that the value of $p = 0.000$ where the value of $p < \alpha (0.05)$ which means that giving Lavender aromatherapy can reduce nausea and vomiting in pregnant women with emesis gravidarum.

Lavender is one of many types of herbal plants. Lavender has many benefits, when compared to other plants (Kurnia, 2019). The benefits of lavender are very useful for pregnant women with symptoms of nausea and vomiting. Another advantage of lavender is that it contains essential oils or flying oils (Koot et al., 2020). This oil is very refreshing, and can block the nausea-vomiting reflex, which is usually experienced by pregnant women, in the first trimester of pregnancy (Rizki et al., 2022).

According to (Rafii et al., 2019) Different intervention techniques were carried out in several studies regarding the administration of lavender essential oil to emesis gravidarum in the first trimester of pregnancy. Where, based on these studies in intervention, using an electric container. In this container, fill it with 2 to 3 drops of essential oil, then connect it to electricity, so that the container can work to convert lavender oil into fine vapors that can be inhaled by pregnant women (Rizki et al., 2022). The steam will relax, and provide a comfortable effect with an inhalation time of approximately 24 hours. Lavender is able to improve blood circulation, and the nerves are also able to work properly. Then, the tension experienced will decrease, the head will become fresh, and even complaints of nausea and vomiting can also be minimized well (Amirhosseini et al., 2020).

Lavender essential oil can be used as a strong aromatic stimulus. This is able to control the numbers on the scale of nausea and vomiting, by means of intestinal peristaltic movements which experience a quite significant increase (Fejzo et al., n.d.).

Based on a theory published in the Obstetrics and Gynecology journal, lavender essential oil used as aromatherapy can help pregnant women reduce the intensity of the nausea and vomiting they are experiencing. This is because the benefits contained in it do not have effects that can harm the mother or the fetus she is carrying (Cangemi & Kuo, 2019). Lavender essential oil is believed to be able to help overcome complaints from pregnant women regarding cases of emesis gravidarum and can reduce the intensity of nausea and vomiting for mothers with multigravida (Fauziah et al., 2022).

According to research (Fratidina et al., 2022), researchers carried out statistical tests using the Wilcoxon test to obtain a p value $(0.000) < \alpha (0.05)$ which means there is a significant difference between the intensity of the degree of nausea and vomiting before and after giving aromatherapy. lavender in pregnant women. From this research, the results also showed that lavender aromatherapy was more effective against nausea and vomiting in pregnant women, namely 8.50 compared to ginger aromatherapy, namely 6.50 (Ani & Machfudloh, 2021). The same results were also obtained from research which used the paired T statistical test showing the results of the analysis of the experimental group and the control group in the first trimester of pregnant women. In the experimental group (giving lavender aromatherapy) the p value was $0.001 < \alpha (0.05)$ while in the control group (giving counseling to reduce nausea and vomiting) the p value was $0.205 > \alpha (0.05)$ so it could be concluded that there was a significant difference in both groups (Pontius & Vieth, 2019).

Researchers are also of the view that (Tara, 2020), giving lavender essential oil for emesis gravidarum in the first trimester of pregnancy is very good as an intervention to reduce the intensity of the degree of nausea and vomiting that mothers often experience in early pregnancy . When undergoing the pregnancy process, mothers are advised to consume relatively mild medicines, therefore non-pharmacological therapy such as lavender essential oil which is used as aromatherapy, is one of the best choices for mothers (Cholifah & Nuriyanah, 2019). If cases of emesis gravidarum are not treated immediately, it will have bad consequences for the mother's health, and can impact the growth and development of the fetus. This happens because the mother's nutritional intake is not met, caused by nausea and vomiting experienced (Usila et al., 2022).

CONCLUSION

There is an effect between giving lavender essential oil on emesis gravidarum in the first trimester of pregnancy. Based on the results of these studies, researchers can conclude that this effect is a positive effect, where when pregnant women experience symptoms of emesis gravidarum, namely nausea-vomiting, then applying lavender essential oil as aromatherapy, pregnant women will feel the difference between before and after giving lavender essential oil. This is because the aroma that comes from lavender essential oil, works through the limbic system and the emotional center of the brain. When the oil is inhaled, the volatile molecules of the oil are carried by the air to the nose, causing the delicate cilia to emerge from the receptor cells. The aroma that is inhaled through this breathing process then stimulates brain performance. This is also influenced by the depth of breathing, resulting in a decrease in nausea. The limitation in this research is that the number of respondents is still small, the research only focused on providing lavender aroma therapy. So that further research can be carried out on the effectiveness of giving lavender aromatherapy with ginger candy to reduce nausea and vomiting in pregnant women.

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