

## The Effect of Giving Lemon Aromatherapy to Reduce Nausea and Vomiting in Pregnant Women in the 1st Trimester in the Working Area of Sukaraja Tiga Health Center Lampung Timur

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### ABSTRACT

Symptoms of nausea and vomiting during pregnancy, which are often called "morning sickness", are normal physiological reactions that occur in the first trimester of pregnancy. An increase in the hormones HCG and estrogen in the body triggers nausea and vomiting during pregnancy. This treatment is divided into two, namely the use of drugs in pharmacological therapy and the use of alternative ingredients such as lemon aromatherapy in non-pharmacological therapy. This study aims to determine the effect of lemon aromatherapy in reducing symptoms of nausea and vomiting in pregnant women in the first trimester in Sukaraja Tiga Health Center, East Lampung. The quantitative research method used is quasi-experimental with a one group pre and post test approach. The number of pregnant women in the first trimester who will be studied in the period April to May 2024 is 27 people, with a gestational age ranging from 5 to 12 weeks, and experiencing symptoms of nausea and vomiting. The sampling method includes all samples selected deliberately using the purposive sampling method and tested using the paired sample T test. Through statistical analysis, the results of the T test were obtained with a p-value of 0.000 or p-value <0.05, indicating that lemon aromatherapy therapy had an effect on reducing nausea and vomiting in first trimester pregnant women in Sukaraja Village. Community Health Center for Three East Lampung Working Areas. The hope is that pregnant women can feel better by using lemon aromatherapy to reduce nausea and vomiting.

## Introduction

According to the World Health Organization (WHO), the seizure and vomiting stage is expected to increase from 46% of cases in 2020 to 52% of cases in 2021 due to a lack of assessment regarding the management of stomach ulcers due to unusual symptoms. Vomiting is also a normal thing, and vomiting. (Indonesian Ministry of Health, 2020 (Ramadani, 2022)).

According to data from the Ministry of Health of the Republic of Indonesia in 2021, there were more than 5,221,784 cases of large stomach ulcers in Indonesia. Pregnancy causes the following physiological transmutations in the face and hands. Physical, gastrointestinal, respiratory, urinary, musculoskeletal, and cardiovascular changes. According to the Lampung Provincial Health Service, the upstream stomach size value reached 34,444,780 per day in 2020 and 34,444,831 per day in 2021. As the upstream stomach size value increases every year, stories



about the impact of pregnancy are increasingly spreading upwards. . time (section of Lampung Province Health Services Profile in the Journal (Ramadhani, 2022), 2021).

Excessive nausea and vomiting during pregnancy is one of the complaints to be wary of because it can cause pregnant women to become weak and have difficulty eating. If not treated properly, this condition called hyperemesis gravidarum can even harm pregnant women and the fetus. Excessive vomiting during pregnancy usually appears at 4-6 weeks of gestation and reaches its peak at 9-13 weeks of pregnancy. When experiencing hyperemesis gravidarum, excessive nausea and vomiting can continue until the 20th week, even throughout pregnancy. Excessive Vomiting During Pregnancy Can Be a Symptom of Hyperemesis Gravidarum - Apart from interfering with daily activities, hyperemesis gravidarum can also cause dehydration and weight loss due to pregnant women so you can't eat or drink (Pane, 2022) .

According to the East Lampung Provincial Health Service, the volume of the upper stomach is estimated to reach 230 per day in 2023 and 180 per day in 2024 (East Lampung Health Service Profile 2023-2024). Physical Changes Influenced by Substances Due to the influence of hormones, the entire upper arm, stomach and face at the same time. One of the hidden transmutations is to disgorge the benefits of pregnancy. The period of vomiting when the first big stomach is still small, 60-80% of girls who give birth have big stomachs and 40-60% of girls who eventually give birth. These symptoms appear and become more critical every 10th pregnancy (HPharahap et al., 2020). Nausea and vomiting (gradual vomiting) are the most common symptoms experienced by the upper abdomen in the first trimester. This problem usually occurs in the morning, but can occur at any time, including on beeswax days. Nausea and vomiting usually occur in the first trimester of pregnancy, more than 5 to 14 weeks after conception (Fitriyani, 2023).

Vomiting in front of the stomach sketch that is not treated causes various effects, other disorders: B. decreased gastric anger. This can cause changes in electrolytes such as potassium, calcium, and sodium, which boost your metabolism. Apart from that, stomach ulcer sufferers also suffer from fatigue, malnutrition, dehydration, weakness and body deformities. Hyperemesis is a complication of vomiting that causes dehydration, a pale feeling to the touch, and increased skin density and decreased skin density, which can result in a decrease in body energy and the nutritional value of tissues. . If this is the case with birth, the roots and arek it contains are threatened (Fitriyani, 2023).

Controlling nausea and vomiting in pregnancy can be done using pharmacological and non-pharmacological methods. Non-pharmacological advice based on medical strength usually makes pregnant women aware of trying aromatherapy (Fitria et al., 2021). Lemon essential oil is extracted from the touch of lemon and is therefore used in aromatherapy. Lemon oil is used as aromatherapy to kill meningococcus and typhus germs, it also has antifungal properties, cleanses unpleasant glands, and reduces the risk of cooling and increases concentration (Yuliana, 2021).

Previous inspection data showed that 20% of the 360 root plants were entangled and vomited in the morning, and about 80% were entangled and vomited in the afternoon. This condition usually occurs at birth and reaches its peak when the fetus is approximately 9 weeks old. However, about 18% of cases of convulsions and vomiting result in labor.

Based on initial control carried out at the Independent Midwifery Practice in NS Jimbaran near the room in January 2021, 50% of 95 root plants experienced symptoms of convulsions and vomiting (Mujayati et al., 2022).

Galang Inspection at Sukaraja Three Health Centers, Marga Tiga District, East Lampung Province. In seven villages, the estimated number of livestock containing K1 that experienced convulsions and vomiting reached 230 and 160 people, including 180 calves during January to December 2023. Women 108 From January to April 2024, residents experienced convulsions and

vomiting. Based on the monthly instructions of 4,444 scandals, 27 roots contain twisting and vomiting bears.

Interviews with 10 pregnant women showed that eight of them only took medication recommended by the Community Health Center to treat seizures and vomiting. Meanwhile, the other two contain lemon essential oil but have not been tried.

Based on these instructions, researchers are interested in conducting a study regarding the benefits of lemon aromatherapy for the treatment of first trimester vomiting in Sukaraja. Three working areas of the Masu Health Center.

The aim of this examination was to determine the effect of lemon aromatherapy surgery on worsening symptoms of seizures and vomiting near the root of first trimester pregnancy in Sukaraja. Tiga Health Center, Lampung Timur.

## Method

This type of quantitative analysis uses a quasi-study design plus a single-group pre- and post-test approach. This research was carried out on 5-30 June 2024 at Sukaraja Puskesmas Tiga, East Lampung. The population and sample in this study were 27 pregnant women in the first trimester who experienced nausea and vomiting in April 2024 using total sampling with inclusion criteria (sources in the first trimester stated that they agreed before being surveyed and experienced nausea and vomiting such as weakness, anorexia, weight loss body, epigastric pain, decreased vital code, gastric weakness, unpleasant taste, dry feeling and hollow water) and exclusion criteria (source in the first trimester, source of pregnancy is severe and prolonged vomiting, weight loss, dehydration, susceptible to smells, decreased appetite for games or drinks, dehydration, weakness and inability to read, write and communicate verbally). The instrument in this study used to measure the frequency of nausea and vomiting using *the Pregnancy Unique Quantification of Emesis Gravidarum and Nausea (PUQE)*. Meanwhile, for administering lemon aromatherapy, use SOP. Data analysis used the *Paired Sample T-Test*.

## Results

Table 1 Frequency Distribution of Respondent Characteristics

Variable	Frequency (n=27)	Percentage (%)
<b>Respondent's Age</b>		
22 – 27 Years	14	51.9
28 – 34 Years	7	25.9
35 – 39 Years	6	22.2
<b>Gestational age</b>		
5 – 8 months	10	37.0
9 – 12 months	17	63.0
<b>Education</b>		
JUNIOR HIGH SCHOOL	3	11.1
SENIOR HIGH SCHOOL	24	88.9
<b>Work</b>		
IRT	16	59.3
Farmer	2	7.4

Trader	3	11.1
Private sector employees	6	22.2

Based on table 1, Sukaraja Tiga East Lampung Community Health Center, most of the sources were 22-27 days old, 14 sources (51.9%), 9-12 months of pregnancy, 17 sources (63.0%), high school studies, 24 sources (88, 9%) and held activities such as housewives as many as 16 sources (59.3%) .

Table 2 Frequency Distribution of Nausea and Vomiting Before Giving Lemon Aromatherapy

Variable	Frequency	Percentage (%)
Light	0	00.0
At the moment	8	29.6
Heavy	19	70.4
<b>Amount</b>	<b>27</b>	<b>100.0</b>

Based on table 2, it is known that at the Sukaraja Tiga Community Health Center, East Lampung Working Area, before being given lemon aromatherapy, most of the interviewees experienced stomach ulcers and vomiting using the weighing stage, 19 resource persons (70.4%)

Table 3 Occurrence of Nausea and Vomiting After Being Given Lemon Aromatherapy

Variable	Frequency	Percentage (%)
Light	2	7.4
At the moment	17	63.0
Heavy	8	29.6
<b>Amount</b>	<b>27</b>	<b>100.0</b>

Based on table 3 , in the work area of the Sukaraja Tiga East Lampung Community Health Center, after being given lemon aromatherapy, the majority of complainants experienced vomiting and vomiting for a moderate period, namely 17 complainants (63.0%)

Table 4 Paired Sample T- Test

Variable	N	Means	Different Means	P-value	95% Confidence Interval Differences	Lower	On
Pre Test		15.93					
Post Test	27	11.48	4.45	0,000	3,266		5,623

Based on table 4, the results of the *Paired Sample T-Test* show that the contribution of lemon aromatherapy is significant in reducing nausea and vomiting in the early pregnancy trimester of Menayang Reservoir at the Sukaraja Tiga East Lampung Community Health Center using a p-value of 0.000 which shows a significant difference of 4.45 points. in reducing seedlings.

## Discussion

### Occurrence of Emesis Gravidarum in TM 1 Pregnant Women Before Being Given Lemon Aromatherapy

Based on the analysis, the majority of people surveyed in the Sukaraja Tiga Health Center area, East Lampung experienced heartburn and vomiting before being treated with lemon aromatherapy, with a severity level of 19 people (70.4%).

Pregnancy is often caused by digestive disorders, the main manifestations of which are heartburn and vomiting, which is called morning heartburn. Morning sickness during pregnancy usually comes in the morning but usually disappears after a few hours, even though the symptoms of poisoning are more often persistent and come at different times. These deadly signs usually appear around 6 weeks after the cockroach enters and usually disappear by themselves within 6 weeks after 12 weeks (Putri et al., 2022). According to an analysis by Putri et al published in the journal (Ramadhani, 2022), the effect of inhaling the aroma of lemon on stomach ulcers during pregnancy shows that before using lemon law treatment, the average number of nausea episodes was 4.53 times per year. .

According to researchers, the results of the analysis show that the average incidence of stomach ulcers and vomiting during pregnancy in the first 3 months is still high, so it can be dangerous if not handled properly and cause discomfort during pregnancy. Giving birth and conceiving the first slave can overcome the law of stomach ulcers and vomiting caused by the womb.

### **Occurrence of Nausea and Vomiting After Being Given Lemon Aromatherapy**

Based on the characteristic analysis, after administering lemon aromatherapy at Sukaraja Tiga Health Center, East Lampung, most of the children experienced moderate diarrhea and vomiting, as many as 17 races were asked (63.0%).

Several studies have demonstrated the effectiveness of intrusive or nonpharmacological treatments in the treatment of nausea and vomiting early in the disease. Research by Madium et al (2021) shows that there are non-pharmacological treatments that can help reduce nausea and vomiting when carrying loads, such as ginger, lemon aromatherapy, hand massage, ginger and sembayan in the form of Ambon banana. Non-pharmacological interventions do not pose a risk of causing serious problems and are therefore highly recommended, such as treatment of constipation and vomiting.

According to an analysis conducted by Astriana et al in the journal (Ramadhani, 2022) regarding the risks of premature nausea and vomiting from lemon aromatherapy, the results show that after using lemon aromatherapy, the average level of nausea and vomiting is 3.13 times higher. . every day.

The results of the study showed that at the beginning of heavy TM I administration there was a high phase of nausea and vomiting, but after using the lemon aroma medication the phase of nausea and vomiting decreased.

Lemon aromatherapy is effective in reducing nausea and vomiting because the aroma that spreads has benefits such as freshness and mental health. When you smell lemon essential oil, its molecules seep into your nose and affect the limbic system which is connected to the adrenal glands, pituitary gland, hypothalamus, and parts of the brain that regulate blood rhythm, stress, hormonal balance, and breathing. This makes lemon aromatherapy very effective in reducing nausea and vomiting before weight loss, thereby providing an extraordinary feeling of comfort.

### **The Effect of Providing Lemon Aromatherapy on Reducing the Incidence of Nausea and Vomiting**

Based on research, it was revealed in the Sukaraja Tiga Community Health Center area, East Lampung. From the results of the statistical analysis, it was found that the p value in the T test was 0.000 or  $p < 0.05$ , so it was concluded that lemon aromatherapy had a significant effect in reducing nausea and vomiting in TM I pregnant women at the Sukaraja Tiga Community Health Center. region, East Lampung with an average difference of 4.45.

One of the uses of lemons is to help relieve nausea and vomiting through aromatherapy using lemon essential oil which comes from lemon peel extract (Citrus Lemon). The aroma of lemon in aromatherapy provides freshness so that the body feels more relaxed and peaceful when inhaled, especially for pregnant women who can feel the benefits in overcoming nausea. The benefit of lemon aromatherapy is to relieve symptoms of nausea and vomiting because lemon essential oil contains linalyl acetate, an ester compound resulting from a mixture of organic acids and alcohol. Esters are useful in maintaining emotional and bodily balance, and act as sedatives and tonics, especially in the nervous system (Purnama, 2023).

In the analysis of Yavari Kia, et al (Afriyanti & Rahendza, 2020) entitled The Effect of Lemon Inhalation Aromatherapy on Nausea and Vomiting of Pregnant: A Double-Blinded, Randomized, Controlled Clinical Trial, latent conflict means evidence of reduced levels of stomach ulcers. before (0.017 ) and after 4 days (0.039) the effect of lemon aromatherapy. According to researchers, consuming lemon peel electrolytes is a non-pharmacological treatment option for stomach ulcers and vomiting in the first trimester.

According to researchers, giving lemon aromatherapy to the stomach to reduce the severity of stomach ulcers and vomiting can help reduce symptoms and stimulate the nervous system to increase feelings of happiness in the stomach and sense of smell, provide a feeling of comfort and calm, and reduce nausea, heartburn and excessive vomiting. Providing lemon aromatherapy can be very healthy for tubers who experience heartburn and vomiting during pregnancy.

## Conclusion

*T test* statistical test, a *p* -value of 0.000 or *p* -value <0.05 was obtained , which means that there was a continuation of giving lemon aromatherapy zakat to reduce nausea and vomiting in the upper stomach in the Menayang trimester. Reservoir in the Sukaraja Tiga Community Health Center Working Area, East Lampung. It is hoped that using the lemon aromatherapy technique can reduce stomach cramps and vomiting.

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