

Lemon Suangi (Citrus limon) Aromatherapy to Reduce Vomitting on Early First Trimester Pregnancy at Teling Public Health Center Wanea District Manado City

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Lemon Suangi (*Citrus limon*) Aromatherapy to Reduce Vomiting on Early First Trimester Pregnancy at Teling Public Health Center Wanea District Manado City

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ABSTRACT

In Indonesia, mothers with hyperemesis gravidarum account for 14.8% of pregnancies in 60-80% of primigravida and 40-60% of multigravida. Nausea is caused by increased levels of the estrogen hormones and the hormone chorionic gonadotropin (HCG) in the serum, physiologic changes in the rise in these hormones are not yet clear, perhaps due to the central nervous system or reduced gastric emptying. Complementary therapy that can be used to prevent and reduce nausea and vomiting is aromatherapy. Aromatherapy is a fragrant plant oil that has a high concentration and is prone to evaporation. The purpose of the research is to understand the effects of *Lemon Suangi* aromatherapy on vomiting in first trimester pregnancy at Teling Public Health Center Wanea Sector, Manado. The research method used was Quasi Experiment with One group Pre-test and Post-test design. This study was conducted in January-May 2019. The population and sample of all pregnant women from January to February 2019 were 15 pregnant women in the Teling Atas Public Health Center, Wanea Sector, Manado. The bivariate analysis in this study used the T test. The frequency of nausea and vomiting in Trimester I pregnant women prior to the intervention was in the category of mild nausea and vomiting, 53% or as many as 8 out of 15 respondents and the remaining 47% or 7 respondents were in the category of moderate nausea, with an average frequency of nausea vomiting before intervention is 3.80 with a standard deviation of 0.862, while the frequency of nausea and vomiting after intervention are mostly in the category of mild nausea, in 80% or 12 out of 15 respondents and the rest 20% or 3 out of 15 respondents fall into the category of nausea moderate vomiting with an average frequency of nausea and vomiting 2.67 and a standard deviation of 0.900 so that the difference in frequency of nausea and vomiting before and after intervention is 1.13. There are differences in the frequency of nausea and vomiting in Trimester I pregnant women after being given an intervention. These results were analyzed by T-Test with the results of the value of $p < \alpha = 0,000 < 0,05$. Pregnant women use alternatives to reduce the frequency of nausea and vomiting in Trimester I pregnant women through experience with *Lemon Suangi* Aromatherapy

Keywords: Lemon Suangi Aromatherapy, Vomiting Nausea, Pregnant Women Trimester I

INTRODUCTION

Nausea, vomiting during pregnancy has a significant impact on family life, the ability to carry out normal daily activities, social functions and the development of stressful situations and cause other symptoms such as fatigue in pregnant women, nutritional disorders, dehydration, weakness, weight loss, and electrolyte imbalance. How to deal with nausea, vomiting during pregnancy can be done through pharmacological and non-pharmacological measures. Non-pharmacological measures are usually recommended by health workers such as encouraging pregnant women to do aromatherapy. Complementary therapy can be used to prevent and reduce nausea and vomiting is aromatherapy. Aromatherapy is a fragrant plant oil that has a high concentration and is prone to evaporation⁽²⁾. The main principle of aromatherapy is the use of odors from plants or flowers to change the condition of feeling, psychology, spiritual status and affect one's physical condition through the relationship of the mind and body of the patient⁽³⁾.

Lemon aromatherapy has ingredients that can kill meningococcal bacteria (meningococcus), typhoid bacteria, has an anti-fungal effect and is effective for neutralizing unpleasant odors, as well as producing anti-anxiety, anti-depression, anti-stress, and for lifting and focusing thoughts⁽⁴⁾. Aromatherapy provides a variety of effects for the inhaler, such as calmness, freshness, can even help pregnant women cope with nausea. Aromatherapy essential oils can overcome physical and psychological complaints. The simplest is through the sense of smell by smelling the aroma of essential oils. One of the effective aromatherapy in reducing nausea is lemon and ginger aromatherapy. Other studies support to use aromatherapy oils as an effective intervention for nausea⁽⁵⁾. Lemon aromatherapy is also recognized as an effective herbal treatment for nausea⁽⁶⁾.

Based on the culture in the Minahasa *Lemon Suangi* (in Minahasa language) besides being used as food for most Minahasa district, pregnant women use this *lemon suangi* to reduce nausea and vomiting in early pregnancy. *Lemon*

Suangi is believed had a very distinctive and strong aroma ¹ so that it can reduce nausea and vomiting in pregnant women and also has the benefit of improving sleep quality, and reducing stress.

The results of preliminary survey data conducted at the Teling Atas Health Center in Manado City from January to February found that 68 pregnant women had pregnancy checks and 20 trimester I pregnant women, 32 trimester II pregnant women, and 16 trimester III pregnant women. From the interviews, ¹ there are were 16 trimester I pregnant women who experienced nausea and vomiting. The percentage of first trimester pregnant women who experience nausea and vomiting is higher than those who do not experience nausea and vomiting. In the Teling Atas health center, if there are patients with nausea and vomiting conditions, they are only given an antiemesis, B6, because usually only nausea is vomiting due to young pregnancy and that is normal.

MATERIALS AND METHODS

This type of research is a Quasy Experiment with One group Pre-test and Post-test design. This research was conducted at the Teling Atas Health Center ¹ in Wanea District, Manado City in January-May 2019. This study used a population of 15 respondents of Trimester I Pregnant Women who experienced nausea and vomiting. The instrument used is the Observation Sheet Fill Form and the aromatherapy furnace. The primary data collection method is by taking anamnesa in first trimester pregnant women who experience nausea and vomiting. While secondary data collection is done by looking at medical records at the Teling Atas Community Center in Wanea District, Manado City. Analysis of data using non-parametric Wilcoxon test with $p < 0.05$. The results of the analysis with the Wilcoxon signed rank test test obtained the difference in comparison of the average level of milk production in postpartum mothers before and after giving ¹ mung bean compote was 3.6. With the results of p value $< \alpha = < 0.01 < 0.05$ then H_a is accepted. With these results it can be concluded that there are significant differences between before and after giving compote to mung beans. This research begins by collecting secondary data before conducting research, determining the subject of research, filling in the consent form from the respondent, collecting primary data (respondent's identity), then conducting interviews and measuring the frequency of nausea and vomiting before giving. After that the respondent is given aromatherapy lemon Suangi every day at 06:00 and o'clock. 18.00 WITA for 3 days and after measuring the frequency of nausea vomiting again with an observation sheet. After the data collection is completed, quantitative data management and analysis are carried out, starting with editing to check data completeness, coding to facilitate data entry, cleaning or data cleaning, then data entry, then quantitative statistical analysis.

RESULTS

Table 1. Frequency distribution of Respondent Characteristics

Mother Age (Year)	F	%
20	1	6,6
21	2	13,3
23	2	13,3
25	4	27
26	2	13,3
28	2	13,3
29	1	6,6
30	1	6,6
PARITY		
PRIMI	10	67
MULTI	5	33

Table 1 shows the average distribution frequency of pregnant women mostly aged 20-25 years 9 pregnant women (60%) at parity mostly Primi 10 (67%).

Table 2. Distribution of Pre and Nausea Vomiting Degrees

Degree of Nausea and Vomiting	Before		After	
	N	%	N	%
mild nausea vomiting Score 1-3	8	53	12	80
moderate nausea vomiting Score 4-6	7	47	3	20
severe nausea vomiting Score 7-9	0	0	0	0

Based on table 2, it can be seen that before giving Lemon Suangi aromatherapy, most respondents were in the category of mild nausea and vomiting, 53% or 8 out of 15 respondents and the rest 47% or 7 respondents were in the category of moderate nausea and vomiting. Whereas nausea and vomiting after intervention were mostly in the category of mild nausea and vomiting, with 12 out of 15 respondents and the remaining 3 respondents included in the category of moderate nausea and vomiting.

a. Frequency Distribution of Respondents

Table 3. Distribution of Nausea and Vomiting Frequency

Frequency of Nausea and Vomiting	Mean	Median	Modus	Min	Max
Pre-Test	3.8	4	4	2	5
Post Test	2.67	3	2	1	4

Based on the analysis from table 3 shows the frequency of nausea and vomiting before giving aromatherapy lemon Suangi with an average value of 3.80 with a minimum value of 2 and maximum 5. While after treatment, the frequency of nausea and vomiting increased to 2.67 with a maximum of 4 and a minimum of 1.

Table 4. Lemon Aromatherapy Analysis of Nausea Frequency

Variable (Frequency nausea vomiting)	N	Mean	Deviation Standart	P value<0,05
Pre-test	15	3.80	0.862	
Post-test	15	2,67	0.900	0,000

Based on the results of the bivariate test using the parametric statistical test T-dependent test on 15 respondents trimester I pregnant women before and after given aromatherapy lemon Suangi for 3 days an increase of 1.13 where the average value before the intervention 3.80 standard deviation 0.862 and after intervention the average frequency of nausea and vomiting increased to 2.67 with a standard deviation of 0.900. Significant value of less than 5% is obtained, that is $p < \alpha = 0,000 < 0,05$, which means there is a difference in the frequency of nausea and vomiting before and after administration of lemon aromatherapy.

DISCUSSIONS

Characteristics of respondents in this study were first trimester pregnant women who experience nausea and vomiting in the Teling Atas Health Center, Wanea District, Manado City. Respondents in this study had a different age and parity, with a maximum age of 25 years by 27% and the majority of respondents were Primipara which was as much as 46.7%.

Primadiati research results, (2010) which can be concluded that the reduction in nausea and vomiting in first trimester pregnant women is influenced by mothers who are not at high risk, mothers with multi gravida pregnancy. From 15 trimester I pregnant women who experience nausea and vomiting, the number of parity data that is affected

after giving therapy is 2 respondents with primi gravida pregnant women, and 8 respondents with multiparous pregnant women, while the number of parities who have no effect after giving therapy is mothers with primi gravida pregnant as many as 3 respondents and mothers with multi gravida pregnant as many as 2 respondents ⁽⁷⁾.

In this study the majority of Primi 9 (60%) experienced moderate nausea and vomiting, when we give the aroma of nausea and vomiting therapy it was reduced to mild 7 (47%) and only 3 (20%) that still experienced moderate nausea and vomiting. In terms of age characteristics, most respondents with no age at risk (20-30 years) 15 (100%). While the number of parities that did not experience the effect after administration of therapy is only in mothers with primi pregnant as much as 2 (13.33%).

Based on the results of the study the average decrease in the frequency of nausea and vomiting caused by aromatherapy Lemon Suangi was able to reduce the frequency of nausea and vomiting in pregnant women who experience nausea and vomiting because of its fresh smell and help improve or maintain health, make the spirit, passion, refreshing and calm the soul, and stimulates the healing process. When the aroma of the Suangi lemon is inhaled, the molecules enter the nasal cavity and stimulate the limbic system in the brain. The physical system is an area that affects emotions and memory and is directly related to the adrenals, the gland of the hypophysis, the hypothalamus, the parts of the body that regulate heart rate, blood pressure, stress, memory, hormonal balance, and breathing. So lemon aromatherapy is good for reducing nausea, vomiting.

This study only had one group that began with a pre-test that measured the frequency of nausea and vomiting. Next is the provision of aromatherapy lemon Suangi given for three days. After completing the intervention, a post-test was performed to determine the frequency of nausea and vomiting. The results showed that the Suangi lemon aromatherapy was able to reduce the frequency of nausea, so the lemon Suangi aromatherapy was effective in reducing the frequency of nausea in pregnant women during pregnancy, so the results of this study showed that the administration of Lemon Suangi aromatherapy was very effective in reducing the frequency of nausea and vomiting. This is in line with the results of a previous study conducted by Wisdyana, S (2017) *Effect of Lemon aromatherapy on Emesis Gravidarum in the Independent Practice of Wanti Merdiwati Midwife Cimahi City*, where Lemon aromatherapy can reduce Vomiting Nausea with a p-value of 0,000 ⁽⁸⁾.

This is consistent with the results of a study conducted by Astriana et al (2015). Based on the results of the study, the influence of lemon inhalation aromatherapy on nausea in pregnancy in BPS Varia Mega Lestari S.ST., M.Kes Batu Puru, Natar District, South Lampung Regency, to 15 respondents, can concluded that the frequency of nausea before given lemon inhalation aromatherapy obtained an average value of frequency of nausea 4.53 times a day, the frequency of nausea after given lemon inhalation aromatherapy obtained an average value of nausea frequency 3.13 times a day and the results of the analysis were the effect of giving lemon inhalation aromatherapy to nausea in pregnancy in BPS Varia Mega Lestari S.ST., M.Kes Batu Puru, Natar Subdistrict, South Lampung Regency with a P-value of 0,000 ⁽⁹⁾.

In line with the results of research Maternity D. (2017) which states that there is a significant decrease in nausea and vomiting in pregnancy, namely the distribution of the Index of Rhodes after 4 days of intervention has decreased effectively on day 4, with an average value of 17.87. 4. There is an influence of lemon inhalation to reduce nausea and vomiting in trimester 1 pregnant women at BPS Lia Maria Sukarame Bandar Lampung in 2017 with a p-value = 0.000 ⁽¹⁰⁾.

Inconsistent research was conducted by Dwi Santi (2013). Those who use mint pepper inhale aromatherapy to relieve nausea and vomiting in trimester 1 pregnancies show that aromatherapy mint is not effective in reducing vomiting in such pregnancy because of the small sample size used in the study. Pregnant women whose frequency of nausea vomiting does not decrease due to psychological factors which indeed play a very important role in this disease, cracked households, loss of work, fear of pregnancy.

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Based on the culture in the Minahasa Lemon Suangi (in the Minahasa language) besides being used as food for most Minahasa mothers use this lemon suangi to reduce nausea and vomiting in early pregnancy. Lemon Suangi is believed to have a very distinctive and strong aroma so that it can reduce nausea and vomiting in pregnant women and also has the benefit of improving sleep quality, and reducing stress. This has been widely believed and used since ancient times. Complementary therapy that can be used to prevent and reduce nausea and vomiting is aromatherapy.

The word aromatherapy means therapy using essential oils whose extracts and chemical elements are taken intact. Aromatherapy is part of herbal science (herbalism) (Poerwadi, 2006) ⁽¹²⁾, while according to Sharma (2009) ⁽¹³⁾. Aromatherapy means treatment using fragrance. The term nausea vomiting also refers to the use of essential oils in holistic healing to improve emotional health and comfort and in restoring body balance. Therapy complementary

(complementary), such as homeopathy, aromatherapy and acupuncture must be done along with conventional medicine (14).

Aromatherapy is an alternative treatment using pure aromatic plant extracts in the form of volatile plant liquid ingredients and other aromatic compounds from plants (7). Aromatherapy is often interpreted as the use of essential oils to improve the health and vitality of the body, mind and spirit by inhalation, soaking baths, compresses, topical use and massage (15).

The Relationship of Lemon Aromatherapy to Emesis, which is Lemon Essential oil is taken from the skin of the fruit. Has the effect of clearing, rejuvenating, arousing pleasure and enthusiasm, also good for the first handling bitten by snakes and insects. Lemon aromatherapy can reduce breathing problems, high blood pressure, forgetfulness, stress, negative thoughts and fear (16). Nausea in pregnancy can be overcome by using complementary therapies including aromatherapy. One of the aromatherapy that can reduce nausea and vomiting in pregnancy is lemon aromatherapy. Lemon aromatherapy provides various effects for its inhalers, such as calmness, freshness, and even can help pregnant women overcome nausea.

Each essential oil has unique pharmacological effects, such as antibacterial, antiviral, diuretic, vasodilator, sedative, and adrenal stimulation. When essential oils are inhaled, entering the nose and dealing with receptors in cilia are related to the olfactory protrusion at the tip of the olfactory tract. The tip of the olfactory tract is related to the brain. The smell is converted by cilia into electrical impulses that are transmitted to the brain through the olfactory system, all impulses reach the limbic system. The limbic system is the part of the brain that is associated with our moods, emotions, memory and learning. All odors that reach the limbic system have a direct chemical influence on our mood. When all the impulses from the aromatherapy reach the limbic system, the impulses will block serotonin (the feeling of wanting to vomit) so that nausea and vomiting can be suppressed because the lemon itself has the benefit of blocking serotonin (13).

In this study on 15 Trimester 1 Pregnant Women 20 weeks gestational age. who experience nausea and vomiting, given Lemon Suangi Aromatherapy by means of 1 lemon Suangi cut into 2 parts, then squeezed and filled in 1 ml small bottles, for the way of giving lemon juice that has been filled in 1 ml bottles, taken 3- 5 drops are then dropped on the aromatherapy furnace in this way 2x done in a day ie in the morning, at 6:00 and in the afternoon at 18:00 for 3 days. This study only had one control group that began with a pre-test that measured the frequency of nausea and vomiting. Next is the provision of aromatherapy lemon Suangi given for three days. After completing the intervention, a post-test was performed to determine the frequency of nausea and vomiting.

Univariate analysis showed that the frequency of nausea and vomiting before the intervention in 15 respondents in the first trimester pregnant women was in the category of mild nausea and vomiting, 53% or as many as 8 out of 15 respondents and the remaining 47% or 7 respondents were in the category of severe nausea and vomiting.

CONCLUSION

1. Frequency of nausea and vomiting in Trimester I pregnant women at the Teling Health Center in Wanea Sub-district of Manado City before most interventions included in the category of mild nausea and vomiting, 53% or 8 out of 15 respondents and the remaining 47% or 7 respondents in the category of nausea and vomiting moderate, with an average value of the frequency of nausea and vomiting before the intervention is 3.80 with a standard deviation of 0.862.
2. The frequency of nausea and vomiting after the intervention are mostly in the category of mild nausea and vomiting, with 80% or 12 of 15 respondents and the remaining 20% or 3 of 15 respondents included in the category of moderate nausea and vomiting with an average frequency of nausea and vomiting 1.67 and the standard deviation is 0.900 so the difference in frequency of nausea and vomiting before and after intervention is 1.13.
3. There are differences in the frequency of nausea and vomiting in Trimester I pregnant women in the Teling Puskesmas, Wanea District, Manado City after being given an intervention. These results were analyzed by T-Test with the results of the value of $p < \alpha = 0,000 < 0.05$.

ETHICAL CLEARANCE

Health Research Ethics Committee Manado Health Polytechnic Ministry of Health. Description of Ethical Approval "Ethical Approval" No. 319/KEPK/VIII/2019.

REFERENCES

1. Balikova M & Budgoza. Quality Of Women'S Life With Nausea And Vomiting During Pregnancy. Central European Journal Of Nursing and Midwifery, 2014, 5 (1), 29-35.
2. Potts, J. (2009). Aromatherapy in Nursing Practice .AustralianNursing Journal16, 11;ProQuestResearchLibraryppg.55.
3. Carstens, J.(2013) . Complementary therapies (aromatheapy and herbal medicine): clinician information, Evidence Summaries-Joanna Briggs Institute , 11(1), 1-5 diperoleh dari <http://seach.ProQuest.com/docview/921745616?accountid=17242>
4. Benson RC, Pernoll ML. Buku Saku Obstetri dan Ginekologi. Jakarta: EGC, 2012.
5. Thompson M, Corbin R, Leung L. Effects of Ginger for Nausea and Vomiting in Early Pregnancy: A Meta-analysis. <https://www.ncbi.nlm.nih.gov/pubmed/24390893> J Am Board Fam Med. 2014 Jan-Feb;27(1):115-22. doi: 10.3122/jabfm.2014.01.130167.
6. Kia PY , Safajou F, Shahnazi M, Nazemiyeh H. The Effect of Lemon Inhalation Aromatherapy on Nausea and Vomiting of Pregnancy: A Double-Blinded, Randomized, Controlled Clinical Trial. Iran Red Crescent Med J. 2014 March'16(3):e14360. Doi:10.5812/ircmj.14360.
7. Wisdyana S. 2017. Pengaruh Lemon Inhalasi Aromaterapi Lemoterhadap Emesis Gravidarum di Praktik Mandiri Bidan Wanti Mardiwati Kota Cimahi. Di peroleh tanggal 19 April 2019.
8. Poerwadi, R. 2006. Aromaterapi Sahabat Calon Ibu. Jakarta: Dian Rakyat.
9. Sharma, S. (2009). Aromaterapi. Jakarta: Karis.
10. Jones, (2006) Buku Ajar Gastroenterology – Hepatologi, IDAI, Jakarta.
11. Primadiati, Rachmi. 2001. Aromaterapi Perawatan Alami Untuk Sehat & Cantik. Jakarta : PT. Gramedia Pustaka Utama.
12. Astriana, Ratna Dewi Putri, Herlina Aprilia 2015. Pengaruh Lemon Inhalasi Aromatherapy Terhadap Mual Pada Kehamilan Di BPS Varia Mega Lestari Batu Puru Kecamatan Natar Kabupaten Lampung Selatan Tahun 2015.
13. Dainty Maternity, Putri Ariska, Dewi Yulia Sari Inhalasi Lemon Mengurangi Mual Muntah Pada Ibu Hamil Trimester Satu, Universitas Malahayati Fakultas Kedokteran
14. Dwi Santi. Pengaruh aromatherapy terhadap mual dan muntah pada kehamilan. http://www.kopertis7.go.id/uploadjurnal/Dwi_Rukma_Santi_stikes_nu_tuban.pdf
15. Jaelani (2009). Aromaterapi. Jakarta: Pustaka Populer Obor
16. Setiyanti, A. A. (2008). Bentuk penggunaan dan jenis aromaterapi, diunduh dari: <http://teena82.wordpress.com>.

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