

THE EFFECTIVENESS OF GIVING PEPPERMINT OIL AROMATHERAPY ON THE SEVERITY OF NAUSEA AND VOMITING IN PREGNANT WOMEN TRIMESTER I AT HEALTH PUSKEMAS TULANG BAWANG 1

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ABSTRAK : EFEKTIVITAS PEMBERIAN AROMATERAPI MINYAK PEPPERMINT TERHADAP KEPARAHAN MUAL DAN MUNTAH PADA IBU HAMIL TRIMESTER I DI PUSKEMA KESEHATAN TULANG BAWANG 1

Di Indonesia, Sebanyak 50%-75% Ibu Hamil Mengalami Mual Dan Muntah Pada Trimester Pertama Atau Awal Kehamilan (Harahap, 2020). Jumlah Kehamilan Di Provinsi Lampung Pada Tahun 2019 Sebanyak 118.241 Ibu, Dengan Kehamilan Tertinggi Di Kabupaten Lampung Tengah Sebanyak 19.211 Ibu Dan Terendah Di Kabupaten Pesisir Barat Sebanyak 1.421 Ibu, Sedangkan Kabupaten Tulang Bawang Sebanyak 11.121 Ibu Masuk Dalam 5 Besar. Tujuan Dari Penelitian Ini Adalah Untuk Mengetahui Efektivitas Aromaterapi Minyak Peppermint Terhadap Derajat Mual Dan Muntah Pada Ibu Hamil Tm I Di Puskesmas Tulang Bawang 1 Tahun 2022.

Jenis Penelitian Ini Adalah Kuantitatif, Dengan Desain Penelitian Pre-Eksperimental. Populasinya Adalah Ibu Hamil Tm I Yang Mengalami Mual Dan Muntah, Teknik Pengambilan Sampel Pada Penelitian Ini Adalah Purposive Sampling, Analisis Data Univariat Dan Bivariat Menggunakan Uji T, Penelitian Dilakukan Di Puskesmas Tulang Bawang 1 Pada Bulan Juni 2022.

Rata-Rata Mual Muntah Pada Ibu Hamil Sebelum Diberikan Aromaterapi Peppermint Dengan Mean 10,30. Rata-Rata Mual Muntah Pada Ibu Hamil Setelah Diberikan Aromaterapi Peppermint Dengan Mean 6,90. Hasil Uji Statistik Diperoleh P-Value = 0,000 Yang Berarti Terdapat Efektivitas Pemberian Aromaterapi Minyak Peppermint Terhadap Derajat Mual Muntah Pada Ibu Hamil Tm I Di Puskesmas Tulang Bawang 1 Tahun 2022. Ibu Hamil Yang Mengeluh Penderita Mual Dan Muntah Pada Trimester Pertama Sebaiknya Melakukan Aromaterapi Minyak Peppermint Dengan Tepat Agar Dapat Mengurangi Mual Dan Muntah Pada Trimester Pertama.

Kata Kunci : Minyak Peppermint, Mual Dan Muntah, Ibu Hamil

ABSTRACT

In Indonesia, as many as 50%-75% of pregnant women experience nausea and vomiting in the first trimester or early pregnancy (Harahap, 2020). The number of pregnancies in Lampung Province in 2019 was 118,241 mothers, with the highest pregnancy in Central Lampung Regency as many as 19,211 and the lowest in Pesisir Barat Regency as many as 1,421 while Tulang Bawang Regency with 11,121 being in the top 5. The purpose of this study was to determine the effectiveness of peppermint oil aromatherapy on the severity of nausea and vomiting in TM I pregnant women at the Tulang Bawang 1 Health Center in 2022.

This type of research is quantitative, with a pre-experimental research design. The population was TM I pregnant women who experienced nausea and vomiting, the sampling technique in this study was purposive sampling, univariate and bivariate data analysis using t-test, the study was conducted at the Tulang Bawang 1 Health Center in June 2022.

The average of nausea and vomiting in pregnant women before being given peppermint aromatherapy with a mean of 10.30. The average nausea and vomiting in pregnant women after being given peppermint aromatherapy with a mean of 6.90. The results of statistical tests obtained p-value = 0.000 which means that there is an effectiveness of giving peppermint oil aromatherapy to the severity of nausea and vomiting in pregnant women with TM I at the Tulang Bawang 1 Health Center in 2022. Pregnant women who complain of nausea and vomiting in the first trimester should do peppermint oil aromatherapy appropriately in order to reduce nausea and vomiting in the first trimester.

Keywords : Peppermint Oil, Nausea and Vomiting, Pregnant Women

INTRODUCTION

Pregnancy is a continuous process that starts from ovulation, conception, nidation, implantation

and development of the embryo in the uterus to term. Any process in pregnancy is a crisis condition that requires psychological and physiological adaptation to the influence of pregnancy hormones and mechanical stress due to enlargement of the uterus and other tissues (Bobak, Lowdermik & Jensen, 2010).

Nausea vomiting that occurs in pregnancy caused by changes in the endocrine system that occur during pregnancy, mainly caused by high fluctuations in levels of Human Chorionic Gonadotropin (hCG), most women who experience symptoms of nausea and vomiting at 8-12 weeks of gestation and gradually decrease until finally stopping at 16 weeks of gestation (Tiran, 2019).

The incidence of nausea vomiting in pregnancy based on data from the World Health Organization (WHO, 2015) estimates that at least 14% of all pregnant women who experience nausea vomiting, the incidence of nausea vomiting in pregnancy in Indonesia obtained from 2,203 pregnancies that can be observed in full is 534 pregnant women who experience nausea vomiting. Pregnancy with hyperemesis gravidarum according to WHO reached 12.5% of all pregnancies in the world with a diverse incidence ranging from 0.3% in Sweden, 0.5% in California, 0.8% in Canada, 10.8% in China, 0.9% in Norway, 2.2% in Pakistan, and 1.9% in Turkey.

In Indonesia, as many as 50% -75% of pregnant women experience nausea and vomiting in the first trimester or early in pregnancy (Harahap, 2020). The number of pregnancies in Lampung Province in 2019 was 118,241 mothers, with the highest pregnancy in central Lampung Regency as many as 19,211 and the lowest in West Coast Regency as many as 1,421 while Tulang Bawang Regency as many as 11,121 was in the top 5 (Lampung Health Office, 2020).

Based on the data below, it can be concluded that from year to year there is an increase in the incidence of cases. In 2018 out of 450 pregnant women, as many as 94 (20.8%) mothers had hyperemesis gravidarum and mothers with complaints of nausea vomiting as many as 102 (22.6%) (Dinkes Lampung, 2018; Anisa, 2021).

According to Wiknjastro (2010), nausea usually occurs in the morning, but there are those that arise at any time and at night. Nausea and vomiting occur in 60-80% of primigravids and 40-60% of multigravids. The impact of nausea vomiting if not handled properly it will cause symptoms of severe nausea vomiting (intractable) and persistent that occurs in early pregnancy resulting in dehydration, electrolyte disturbances or nutrient

deficiency known as hyperemesis gravidarum (Sari, 2018).

The management of nausea and vomiting in pregnancy depends on the severity of the symptoms. Treatment ranges from the mildest with dietary changes to approaches with antimetic medication, hospitalization, or parenteral nutrition. Treatment consists of pharmacological and non-pharmacological therapies. Pharmacological therapy is carried out with the administration of antimetics, antihistamines and corticosteroids. Non-pharmacological therapy is done by regulating diet, emotional support, acupressure and ginger (Runiari, 2010).

In general, mothers who experience nausea vomiting do not feel comfortable and want to go through this period immediately. One of the treatments to overcome the discomfort of nausea vomiting in the first trimester of pregnancy is with pharmacological or non-pharmacological therapy. Pharmacological therapy is carried out with the administration of antiemetics, antihistamines, anticholinergics and corticosteroids. However, there are also nonpharmacological therapies, one of which can be done with emotional support, acupressure and aromatherapy (Hidayati, 2009; Wiknjastro, 2010; Rosalina, 2019).

Aromatherapy is one of a variety of complementary therapies that are developing rapidly and rapidly (Buckle, 2003; Rosalina, 2019). The reason is, this treatment is classified as economical or does not require a lot of cost, affordable and easy to do. The term aromatherapy refers to the use of chemical drugs using natural ingredients (Triarsari, 2009; Rosalina, 2019).

Aromatherapy Treatment provides a variety of effects for the inhaled, such as calmness, freshness, and can even help pregnant women cope with nausea and vomiting. Aromatherapy is a terapeutik action by using essential oils that are useful to improve the physical and psychological state of a person for the better.

Some essential oils have unique pharmacological effects such as anti-bacterial, anti-viral, diuretic, vasodilator, sedative, and adrenaline stimulant. Molecules in these essential oils when inhaled through the nasal cavity can stimulate the limbic system in the brain. The limbic system in the brain is an area that affects emotions and memory and is directly related to adrenaline, pituitary gland, hypothalamus, parts of the body that regulate heart rate, blood pressure, stress, body balance and breathing (Runiari, 2010).

Aroma therapy that is often used is peppermint (mentha piperita) peppermint belongs

to the genus labiate, which has a very high fragrance level, and has a cool, refreshing, strong, deep menthol smell, peppermint essential oil is the best cure for digestive problems. This oil contains reliable anti-seizure and healing properties for cases of nausea, indigestion, difficulty getting rid of gas in the stomach, diarrhea, constipation, as well as being equally effective for healing headaches, migraines, and also fainting (Sari, 2018).

Peppermint has properties to overcome nausea and vomiting in pregnant women, it is in karnakan high content of menthol (50%) and menthone (10% -30%). In addition, peppermint has long been known to provide carnimative and antispasmodic effects, which specifically work in the smooth muscles of the gastrointestinal tract and all bile, besides peppermint also contains aromatherapy and essential oils that have pharmacological effects. Aromatherapy is a therapeutic action by using essential oils that are useful to improve the physical and psychological state so that it becomes better

The results of prasurvey conducted at the health center of Tulang Bawang 1 to 15 pregnant women in the first Trimester by conducting free interviews, it is known that 11 mothers (73.3%) had problems with nausea vomiting with signs of nausea in the morning, and after eating or drinking containing fat or oil, and accompanied by vomiting as much as 6-7 times per day accompanied by impaired activity. While 4 mothers (26.7%) experienced mild nausea and vomiting, with a frequency of vomiting as much as 3-4 times per day and still able to move at home.

RESEARCH METHODS

In this study the authors limit the scope of research as follows: this type of research is quantitative, with pre-experimental research design. The population was pregnant women in the first Trimester who experienced nausea and vomiting, the sampling technique in this study was total sampling, univariate and bivariate data analysis using the t-Test Test, the study was conducted at the Tulang Bawang 1 Health Center in July 2022.

RESEARCH RESULTS

Characteristics Of Respondents

Table 1
Characteristics Of Pregnant Women In The First Trimester Before Being Given Peppermint Oil Aromatherapy At The Tulang Bawang Health Center 1 Year 2022

Gestational Age	Frequency	Percentage
10 Week	3	15,0
11 Week	6	30,0
12 Week	11	55,0
Parity		
G1P0A0	7	35,0
Primiparous	2	10,0
G2P0A1	9	45,0
Multiparous	1	5,0
G2P1A0	1	5,0
Multiparous		
G3P1A1		
Multiparous		
G3P2A0		
Multiparous		
Age		
20 Year old	1	5,0
21 years old	1	5,0
22 years old	1	5,0
23 years old	2	10,0
25 years old	1	5,0
26 years old	2	10,0
27 years old	2	10,0
28 years old	1	5,0
29 years old	3	15,0
30 years old	2	10,0
31 years old	1	5,0
32 years old	2	10,0
33 years old	1	5,0

Based on Table 1 gestational age 10-12 weeks as many as 20 respondents (100%). Parity most multiparous G2P1A0 9 respondents (45.0%). Age of respondents most 20-30 years 16 respondents (80.0%).

Univariate Analysis

From table 2 above, it can be seen that the average nausea and vomiting in pregnant women in the first Trimester before being given peppermint oil aromatherapy at the Tulang Bawang 1 Health Center in 2022, with a mean of 10.30.

Table 2
Average Nausea And Vomiting In Pregnant Women In The First Trimester Before Being Given Peppermint Oil Aromatherapy At The Tulang Bawang Health Center 1 Year 2022

Variable	N	Mean	SD	SE	CI-95%
Nausea And Vomiting Before The Intervention	20	10,30	1,380	0,309	9,65-10,95

Table 3
The Average Nausea And Vomiting In Pregnant Women In The First Trimester After Being Given Peppermint Oil Aromatherapy At The Tulang Bawang Health Center 1 Year 2022

Variable	N	Mean	SD	SE	CI-95%
Nausea And Vomiting After The Intervention	20	6,90	1,210	0,270	6,33-7,47

From table 3 above, it can be seen that the average nausea and vomiting in pregnant women in the first Trimester after being given peppermint oil aromatherapy at the Tulang Bawang 1 Health Center in 2022, with a mean of 6.90.

Bivariate Analysis

From table 4 it can be seen that the average emesis gravidarum 20 respondents with a mean of 10.30 before being given the intervention, and

decreased mean 6.90 after being given the intervention, which means that respondents decreased after being given peppermint aromatherapy.

The results of statistical tests obtained p-value= 0.000, which means that there is an effectiveness of giving peppermint oil aromatherapy on the severity of nausea and vomiting in pregnant women in the first Trimester at the Tulang Bawang 1 Health Center in 2022.

Table 4
The Effectiveness Of Peppermint Oil Aromatherapy On The Severity Of Nausea And Vomiting In Pregnant Women In The First Trimester At The Tulang Bawang Health Center 1 Year 2022

Variable	N	Mean	SD	SE	P-Value	CI-95%
Pretest	20	10,30	1,380	0,309	0.000	2,536-4,264
Posttest	20	6,90	1,210	0,270		

DISCUSSION

Univariate Analysis

Average Nausea And Vomiting In Pregnant Women In The First Trimester Before Being Given Peppermint Oil Aromatherapy At The Tulang Bawang Health Center 1 Year 2022

Rata-rata mual dan muntah pada ibu hamil Trimester I before being given peppermint oil aromatherapy at the Tulang Bawang Health Center 1 in 2022, with a mean with 10,30.

In line with the theory put forward Wiknjosastro (2016) nausea (nausea) and vomiting (emesis) are symptoms that are reasonable and often caught in the first trimester of pregnancy. Nausea usually occurs in the morning, but it can also arise at any time and at night these symptoms are approximately 6 weeks after the first day of the last menstruation and last for approximately 10 weeks. Emesis Gravidarum is a common complaint presented in young pregnancies. The occurrence of pregnancy causes hormonal changes in women

because there is an increase in the hormones estrogen, progesterone, and the release of placental human chorionic gonadotropine. It is this hormone that causes emesis gravidarum (Runiari, 2010).

In line with research conducted by Santi, D. R. (2013). The effect of aromatherapy Blended Peppermint and Ginger Oil against nausea in pregnant women Trimester one at Rengel Health Center Tuban Regency. results: the average intensity of nausea vomiting in the peppermint group during pretest was 2.38 and decreased at the time of posttest to 1 with a p-value of 0.004. The intensity of nausea vomiting in the pretest Pomelo group was 6.38 down to 1.75 at posttest with a P-value of 0.000.

According to researchers nausea and vomiting or so-called emesis gravidarum is a common complaint in young pregnancy. The occurrence of pregnancy causes hormonal changes in women because there is an increase in the hormones estrogen, progesterone, and placental hCG production. Nausea and vomiting can also be

caused by hormonal changes and the state of the body to prepare a new position or home for the fetus.

In this study the average emesis gravidarum of 10.30 the frequency of nausea and vomiting can be caused by the body's response to objects, odors, or food consumed, in addition to the handling and management of nausea vomiting is very necessary for pregnant women, such as providing warm food, snacks or crackers, as well as non-pharmacological management (herbal medicine) in the hope of nausea and vomiting can be resolved, and does not interfere with maternal nutritional intake.

The Average Nausea And Vomiting In Pregnant Women In The First Trimester After Being Given Peppermint Oil Aromatherapy At The Tulang Bawang Health Center 1 Year 2022

The average nausea and vomiting in pregnant women in the first Trimester after being given peppermint oil aromatherapy at the Tulang Bawang 1 Health Center in 2022, with a mean of 6.90.

In line with the opinion expressed by Winkjosastro (2007) the pathophysiology of Emesis gravidarum can be caused due to increased Hormone Chorionic Gonadotropin (HCG) can be a factor of nausea and vomiting. Increased levels of the hormone progesterone causes smooth muscles in the gastrointestinal system to relax so that motility decreases and the stomach becomes empty. Hyperemesis gravidarum which is a complication of young pregnant women when it occurs continuously can lead to dehydration, electrolyte imbalance, and can result in carbohydrate and fat reserves are used up for energy purposes.

This study is in line with research conducted by Yantina (2016) with the title of the effect of peppermint essential Oil on the intensity of nausea and vomiting in pregnant women in the first Trimester in the village of Way Harong Timur district of way Lima Pesawaran district, the results showed that the provision of peppermint essential oil has a significant effect on nausea vomiting pregnant

In the opinion of researchers from the data obtained there are pregnant women whose frequency of nausea does not decrease due to psychological factors that do play an important role in this disease. Fractured households, lost jobs, fear of pregnancy and childbirth, fear of maternal responsibilities, can cause mental conflicts that can exacerbate nausea and vomiting as an unconscious expression of unwillingness to become pregnant.

In general, mothers who experience nausea vomiting do not feel comfortable and want to go through this period immediately. One of the treatments to overcome the discomfort of nausea

vomiting in the first trimester of pregnancy is with pharmacological or non-pharmacological therapy. Pharmacological therapy is carried out with the administration of antiemetics, antihistamines, anticholinergics and corticosteroids. However, there are also nonpharmacological therapies, one of which can be done with emotional support, acupuncture and the provision of aromatherapy.

In accordance with the opinion expressed by Runiari (2010) aromatherapy is a therapeutic action by using essential oils that are useful to improve the physical and psychological state of a person for the better. Some essential oils have unique pharmacological effects such as anti-bacterial, anti-viral, diuretic, vasodilator, sedative, and adrenaline stimulant. The molecules in these essential oils when inhaled through the nasal cavity can stimulate the limbic system in the brain which is directly linked to adrenaline, the pituitary gland, hypothalamus, the parts of the body that regulate heart rate, blood pressure, stress, body balance and breathing.

Bivariate Analysis

The Effectiveness Of Peppermint Oil Aromatherapy On The Severity Of Nausea And Vomiting In Pregnant Women In The First Trimester At The Tulang Bawang Health Center 1 Year 2022

The results of statistical tests obtained p-value= 0.000, which means that there is an effectiveness of giving peppermint oil aromatherapy on the severity of nausea and vomiting in pregnant women in the first Trimester at the tulang bawang 1 Health Center in 2022.

In line with the theory put forward by Amin & Hardhi, (2013) emesis gravidarum is a state of nausea vomiting more than 10 times in 24 hours or every time pregnant women to interfere with daily work. Nausea vomiting is a disorder most often found in the first trimester of pregnancy. Approximately at 6 weeks after menstruation ends for 10 weeks. About 60-80% of primigravids and 40-60% of multigravids have nausea vomiting. However, these symptoms become severe only in 1 out of 1000 pregnancies (Rukiyah, 2014).

In line with research conducted by Astriana, et al. (2021) Giving Aromatherapy Combination Of Lemon And Peppermint Affects The Intensity Of Nausea And Vomiting In Pregnant Women In The First Trimester. Results: there was an effect of giving a combination of lemon and peppermint aromatherapy on the intensity of nausea vomiting in first trimester pregnant women in the working area of the Aluan Rajawali Health Center, Tulang Bawang Regency in 2021 with p-value = 0.001.

The average emesis gravidarum 20 respondents with a mean of 10.30 before being given the intervention, and decreased mean 6.90 after being given the intervention, which means that respondents decreased after being given peppermint aromatherapy. This proves if the administration of aromatherapy peppermint inhalation can reduce nausea and vomiting in pregnant women TM I.

Aromatherapy, especially peppermint oil is a commonly used method to reduce nausea and vomiting in pregnant women (*mentha piperita*). The genus *labiate*, which includes peppermint, has a very strong aroma. Peppermint essential oil has a cooling, refreshing, strong and deep menthol aroma that is the best remedy for stomach problems. In addition to being anti-seizure, this oil is also known to be able to cure nausea, indigestion, diarrhea, and constipation. It is also beneficial in treating headaches, migraines, and fainting spells, as well as nausea, vomiting, and diarrhea (Lawrence, 2013; Russian, 2019).

In addition to the use of peppermint inhalation method, in the opinion of researchers prevention of emesis gravidarum by way of encouraging eating small amounts but more often, recommend drinking warm tea and biscuits, dry bread, in addition to the mother is also expected not to consume excess milk or foods containing fat, because it will increase rangasangan vomiting. In addition to using diet food, handling emesis gravidarum can be given pharmacologically which includes drugs/ medi, as well as non-pharmacological one of which is the provision of aromatherapy pappermint.

Peppermint has long been known to exert a carminative and antispasmodic effect, specifically acting on the smooth muscles of the gastrointestinal tract and biliary tract. The benefits of essential oils can be felt if we can know the quality of the oil. To determine the good / bad quality of essential oils can be known from the latin / botanical name so that it knows from what plant the essential oil is taken, the packaging is in a dark glass bottle (because essential oils are very sensitive to heat, light, and air), and the price (cheap price = low quality, different oils then different prices). In contrast to chemically synthesized drugs, the use of plant essential oils is not considered a foreign body in the body, so it does not aggravate the work of organs.

Based on the characteristics of respondents obtained gestational age 10-12 weeks as many as 20 respondents (100%). According to Prawiroharjo (2014), nausea vomiting is a natural symptom and often occurs in the first trimester of pregnancy. Pregnancy affects the mother's body as a whole and causes physiological changes that generally occur in all organ systems, most of the changes in the

mother's body are temporary and mostly caused by the action of hormones.

Parity most multiparous 9 respondents (45.0%). Parity is one of the factors that contribute to the high tendency of hyperemesis gravidarum as one of the conditions that result in pathology for the mother and fetus. Hyperemesis gravidarum is more common in women who are pregnant for the first time and in women with high parity such as mothers who have experienced a fourth pregnancy, this is inseparable because of psychological factors, namely fear of responsibility as a mother if she is no longer able to take care of her children, this can cause mental conflicts that can aggravate nausea and vomiting. Razak (2010; Blessed., Sugita, 2018).

Age of respondents most 20-30 years 16 respondents (80.0%). stating that a person's age is the number of Ages that are broadly an indicator of maturity in every decision making that refers to each experience. The more mature, the level of maturity and strength of a person will be more mature in thinking and logical.

In this study there were 2 mothers who did not experience a decrease in nausea vomiting, which is on a scale of 9 both pretes and postes, namely the first responder age 20 years parity primipara, gestational age 12 weeks. Respondents were both age 26 years parity multiparous and gestational age 12 weeks. This can be caused by nausea vomiting is often ignored because it is considered a normal consequence in early pregnancy without recognizing the great impact it has on pregnant women. In addition, when the study was conducted, the two respondents on Day 2 complained of headaches, where peppermint as discussed can overcome complaints of one of them is headache and nausea vomiting. So there is a problem in the accuracy of the use of peppermint inhalation as a therapy to reduce nausea and vomiting.

Emesis Gravidarum is a common complaint presented in young pregnancies. The occurrence of pregnancy causes hormonal changes in women because there is an increase in the hormones estrogen, progesterone, and the release of placental human chorionic gonadotropine, this hormone causes emesis gravidarum.

Apart from the factors discussed above, the weight factor is also a cause related to emesis. Mother's weight is affected by the state of emesis gravidarum, mothers who lose nutrients excessively, will experience disorders mal adequate nutrition, where the amount of nutrient intake is not proportional to that issued, the reduced weight of the mother will have an impact on the maternal body Index, which is measured by height and weight.

CONCLUSION

The average nausea and vomiting in pregnant women before being given peppermint aromatherapy with a mean with 10.30. The average nausea and vomiting in pregnant women after being given peppermint aromatherapy with a mean of 6.90. The results of statistical tests obtained p-value= 0.000, which means that there is an effectiveness of giving peppermint oil aromatherapy on the severity of nausea and vomiting in pregnant women in the first Trimester at the tulang bawang 1 Health Center in 2022.

SUGGESTIONS

For pregnant women who complain of nausea and vomiting in the first trimester can do peppermint oil aromatherapy therapy with the aim of reducing nausea and vomiting in the first trimester that is felt.

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