

GIVING AROMATHERAPY COMBINATION OF LEMON AND PEPPERMINT AFFECTS THE INTENSITY OF Nausea and Vomiting IN PREGNANT WOMEN IN TRIMESTER I

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ABSTRAK PEMBERIAN AROMATERAPI KOMBINASI LEMON DAN PEPPERMINT MEMPENGARUHI INTENSITAS MUAL DAN MUNTAH PADA IBU HAMIL TRIMESTER I

Latar Belakang: Mual dan muntah (emesis gravidarum) sering terjadi selama kehamilan tetapi jika mual dan muntah terjadi lebih dari 10 kali sehari dapat mengganggu keseimbangan nutrisi, elektrolit, dan dapat mempengaruhi keadaan umum sehingga jika muntah meningkat menjadi hiperemesis dapat menyebabkan gangguan pertumbuhan janin. Angka kejadian emesis gravidarum pada ibu hamil sebesar 50-90%, sedangkan hiperemesis gravidarum di Provinsi Lampung mencapai 10-15% dari jumlah keseluruhan 182.815 ibu hamil pada trimester pertama kehamilan. Mual pada kehamilan dapat diatasi dengan menggunakan terapi komplementer dengan aromaterapi.

Tujuan: Untuk mengetahui pengaruh pemberian kombinasi aromaterapi Lemon dan peppermint terhadap intensitas mual muntah pada ibu hamil trimester I di wilayah kerja Puskesmas Paduan Rajawali Kabupaten Tulang Bawang Provinsi Lampung di 2021.

Metode: Penelitian ini merupakan penelitian kuantitatif dengan eksperimen semu dengan dua kelompok pretest dan posttest. Populasi penelitian ini adalah 42 ibu hamil trimester I yang mengalami mual muntah dengan jumlah sampel 30 orang, dimana 15 orang akan dijadikan eksperimen dan 15 orang sebagai kelompok kontrol. Obyek penelitian ini adalah mual dan muntah pada ibu hamil, dan kombinasi lemon dan peppermint yang dihirup. Penelitian dilaksanakan di Wilayah Kerja Puskesmas Paduan Rajawali Kabupaten Tulang Bawang Provinsi Lampung pada bulan Juni – Juli tahun 2021. Pengumpulan data menggunakan lembar observasi dan kuesioner. Analisis data dilakukan secara univariat dan bivariat (uji t).

Hasil : Ada pengaruh pemberian kombinasi aromaterapi lemon dan peppermint terhadap intensitas mual muntah pada ibu hamil trimester I di wilayah kerja Puskesmas Paduan Rajawali Kabupaten Tulang Bawang Tahun 2021 dengan p-value = 0,001.

Kesimpulan: Intensitas mual muntah menurun setelah diberikan kombinasi aromaterapi Lemon dan Peppermint.

Saran : Bagi seluruh petugas kesehatan dapat menggunakan aromaterapi peppermint dan lemon sebagai SOP dalam mengurangi mual muntah pada ibu hamil.

Kata kunci: Aromaterapi Peppermint, Kehamilan Lemon, Mual dan Muntah

ABSTRACT

Background: Nausea and vomiting (emesis gravidarum) are common during pregnancy but if nausea and vomiting occur more than 10 times a day, it can disrupt the balance of nutrition, electrolytes, and can affect the general condition so that if vomiting increases to hyperemesis it can cause impaired fetal growth. The incidence of emesis gravidarum in pregnant women is 50-90%, while hyperemesis gravidarum reaches 10-15% in Lampung Province from the total number of 182,815 pregnant women in the first trimester of pregnancy. Nausea in pregnancy can be overcome by using complementary therapies with aromatherapy.

Purpose: The purpose of the study was to determine the effect of giving a combination of Lemon and peppermint aromatherapy on the intensity of nausea and vomiting in first trimester pregnant women in the working area of Paduan Rajawali Health Center, Tulang Bawang Regency, Lampung Province in 2021.

Methods: This research was quantitative with a quasi-experimental with two groups pretest and posttest. The population of this study was 42 pregnant women in the first trimester that experienced nausea and vomiting with a total sample of 30 people, which 15 people would be experimented and 15 people as a control group. The objects of this research were nausea and vomiting in pregnant women, and Inhaled combination of lemon and peppermint. The research was carried out in the Working Area of Paduan Rajawali Health Center, Tulang Bawang

Regency, Lampung Province on June - July in 2021. Data collection used observation sheets and questionnaires. Data analysis was univariate and bivariate (t test).

Results : There was an effect of giving a combination of lemon and peppermint aromatherapy on the intensity of nausea and vomiting in first trimester pregnant women in the working area of Paduan Rajawali Health Center, Tulang Bawang Regency in 2021 with a p-value = 0.001.

Conclusion: The intensity of nausea and vomiting decreased after being given a combination of Lemon and Peppermint aromatherapy.

Suggestions: for all health officers can use peppermint and lemon aromatherapy as SOPs in reducing nausea and vomiting in pregnant women.

Keywords : Lemon, Nausea and Vomiting, Peppermint Aromatherapy, Pregnancy

INTRODUCTION

Pregnancy is a process that starts from ovulation, conception, nidation, implantation and embryo development in the uterus until term (Winkjosastro, 2016). Pregnancy affected to body of pregnant by causing physiological changes that occur in all organ systems, most of the changes are caused by hormonal work (Manuaba, 2013).

In general, 80-90% of pregnancies will proceed normally and only 10-12% of pregnancies are accompanied by complications or develop into pathological pregnancies. One of the things that often occur in pregnant women as a direct result of pregnancy is nausea and vomiting. Nausea and vomiting generally occur in the first months of pregnancy, and are sometimes accompanied by emesis. This condition is commonly known as morning sickness. This morning sickness condition is one of the earliest symptoms in pregnancy that occurs in the first and second trimesters, but can also last up to 4 months of pregnancy (Susanti, 2019).

The most influential discomfort in pregnant women is nausea. Nausea in pregnancy is the body's reaction to the changes that occur as a result of pregnancy. About 75% of all women experience nausea and vomiting in early pregnancy. Pregnant women often ignore the nausea and vomiting they feel because they are considered a consequence of early pregnancy without knowing the severe impact it has. This change occurs due to an imbalance of the hormones progesterone and estrogen, namely the female hormones that have been in the mother's body since the pregnancy process (Sulistiyawati, 2012).

According to the World Health Organization, the incidence of nausea and vomiting is at least 14% of all pregnant women and the incidence of hyperemesis reaches 12.5% of all pregnancies in the world (Alulu, 2019). The incidence of emesis gravidarum is 8.9% of pregnant women in New York experiencing nausea and about 55% experiencing vomiting. The incidence of nausea and vomiting in

New York is much greater than the incidence of nausea and vomiting in pregnant women in the world (Tiran, 2012).

According to Ariyanti (2020) based on research conducted in the United States, Nausea and vomiting are common in pregnancy, occurring in 70-85% of all women who experience pregnancy. Hyperemesis gravidarum occurs in 0.5-2% of pregnancies, with variations in incidence arising from different diagnostic criteria and ethnic variations. Research has found an incidence rate of 0.8% for hyperemesis gravidarum and an average of 1 hyperemesis patient is hospitalized an average of 2-4 days (Ariyanti, 2020).

The incidence of nausea and vomiting in Indonesia from the results of observations obtained was 24.7% of the 2,203 pregnant women. The incidence of nausea and vomiting that occurs in Indonesia is much greater than the incidence in the world. The incidence of nausea and vomiting occurs in 60-80% primigravida and 40-60% multigravida (Astriana, 2015). Based on the Health Profile of Lampung Province in 2017, the high incidence of emesis gravidarum in pregnant women is 50-90%, while hyperemesis gravidarum reaches 10-15% in Lampung Province from the number of pregnant women who are 182,815 people (Profile of Health Office Lampung, 2017).

In 2018 Tulang Bawang Regency there were 9,455 first trimester pregnant women and who experienced nausea and vomiting were 6,805 (71.97%) pregnant women. In 2019, there were 8,787 first trimester pregnant women who experienced nausea and vomiting were 6,414 (73.01%) pregnant women. In 2020, there were 8,955 pregnant women in the first trimester and 6,806 (76.00%) pregnant women who experienced nausea and vomiting (Profile of Health Office of Tulang Bawang Regency, 2020)

Based on data obtained from the Paduan Rajawali Health Center, Tulang Bawang Regency in 2018, there were 248 pregnant women, who did not

experience nausea and vomiting were 186 (75%) pregnant women and hyperemesis gravidarum were 10 (4.03%) pregnant women, in 2019 there were 270 pregnant women, who experienced nausea and vomiting were 206 (76.29%) and hyperemesis gravidarum were 18 (6.67%) pregnant women, in 2020 there were 297 pregnant women, who experienced nausea and vomiting were 234 (78.79%) and hyperemesis gravidarum were 29 (9.76%) pregnant women. The Paduan Rajawali Health Center, Tulang Bawang Regency is a health center that has experienced an increase in the number of first trimester pregnant women with nausea and vomiting every year (Profile of the Paduan Rajawali Health Center, 2020).

Emesis gravidarum if not treated immediately will increase to hyperemesis and can result in impaired fetal growth, the fetus dies in the womb and the fetus can experience congenital abnormalities (Laksmi, 2008). One of the complications of pregnancy is nausea and vomiting or known as Hyperemesis Gravidarum. The impact of Hyperemesis Gravidarum is dehydration which causes decreased O₂ consumption, impaired liver function and jaundice occurs, bleeding occurs in the liver parenchyma, causing general function disorders of vital organs and causing death (Manuaba, 2013).

There are many things to do to overcome nausea and vomiting, starting with eating, drinking, taking medication and taking action. Mothers are expected to eat foods with balanced nutrition, foods that contain carbohydrates, fats, proteins, vitamins, and minerals. Lack of these nutrients can worsen the mother's condition (Tiran, 2012). Efforts to reduce the frequency of vomiting can be given several actions such as drugs, on the other hand nausea in early pregnancy can be reduced by using complementary therapies such as herbal or traditional plants that can be done and easily obtained such as ginger, peppermint leaves, lemon and so on (Febriyanti, 2020).

Various kinds of aromatherapy, such as lavender aromatherapy have a calming effect. Lemon aromatherapy works to increase psychological power. Rose aromatherapy has a freshness effect, lowers systolic blood pressure and improves memory quality (Sari, 2015). Peppermint aromatherapy is warm and can relax the muscles, relieve shortness of breath when used by inhalation (Amilia, 2019). Peppermint has properties to treat nausea and vomiting in pregnant women, this is due to the high content of menthol (50%) and methone (10-30%). In addition, peppermint has long been known to have a carminative and antispasmodic effect, which specifically acts on the smooth muscles

of the gastrointestinal tract and bile ducts (Yantina, 2016).

Peppermint also contains aromatherapy and essential oils that have pharmacological effects. Peppermint aromatherapy comes from peppermint leaves. Peppermint aromatherapy is warming and can relax the muscles, relieve shortness of breath when used by inhalation (Amilia, 2019). According to Snyder and Lindquist (2015), peppermint aromatherapy can be used to relax cramped muscles, improve ingestion and digestion disorders, reduce nausea and vomiting and overcome inability to flatus (Safitri, 2020).

In addition, peppermint has long been known to have a carminative and anti-spasmodic effect, which specifically acts on the smooth muscles of the gastrointestinal tract and throughout the bile (Sari, 2018). The results showed that before being given peppermint aromatherapy more than half (70%) of the respondents experienced moderate level of nausea. After being given peppermint aromatherapy, almost all (95%) respondents experienced mild nausea (Andriyan, 2017).

Lemon aromatherapy contains ingredients that can kill meningococcal bacteria (*meningococcus*), *typhoid bacteria*, have antifungal effects and are effective for neutralizing unpleasant odors, and produce anti-anxiety, anti-depressant, anti-stress effects, and to lift and focus the mind. Lemon essential oil is the most widely used herbal oil and is considered a safe drug in pregnancy (Maternity, 2016).

According to Maesaroh's research (2019), the study obtained the average frequency of nausea and vomiting before the intervention was 17.37 times, while after the intervention it decreased to 12.43 times. There is an effect of inhalation of lemon aromatherapy on nausea and vomiting in first trimester pregnant women (p value 0.000). Conclusion: inhalation of lemon aromatherapy is effective in reducing the frequency of nausea and vomiting in pregnant women with a decrease of 4.86 times the frequency of nausea and vomiting. Inhalation of lemon aromatherapy is a part that can be applied as a complementary therapy to reduce the frequency of nausea and vomiting in the care of pregnant women.

The results of a preliminary study conducted on January 8-9, 2021, by looking at notes from the visit book for pregnant women, there were 48 pregnant women in the first trimester, 37 (77.0%) pregnant women experienced nausea and vomiting. However, 3 (6.2%) experienced excessive nausea and vomiting, 8 (16.7%) complained of dizziness and others did not have any complaints. In dealing with

maternal complaints, health officers provide anti-nausea drugs (vitamin B6 consumed by mothers for 7 days) and counseling on diet and health officers have not provided counseling related to inhalation of lemon and peppermint to reduce nausea and vomiting.

Taking the title about the effect of giving a combination of Lemon and peppermint aromatherapy on the intensity of nausea and vomiting in first trimester pregnant women because the researchers wanted to provide an effort to treat nausea and vomiting in pregnant women with non-pharmacological methods and have no side effects, easy to do it and have great benefits in reducing nausea and vomiting in pregnant women. Take place in the work area of Paduan Rajawali Health Center, Tulang Bawang Regency because there are still many pregnant women who experience nausea and vomiting during pregnancy and an increase in pregnant women who experience nausea and vomiting every year and mostly do not know the benefits of lemon and peppermint aromatherapy for reduce the intensity of nausea and vomiting of pregnant women in the first trimester.

Based on the description above, the authors are interested in conducting research on the effect of giving a combination of Lemon and peppermint aromatherapy on the intensity of nausea and vomiting in first trimester pregnant women at the

Paduan Rajawali Community Health Center, Tulang Bawang Regency in 2021.

RESEARCH METHODOLOGY

This type of research uses quantitative research with a quasi-experimental research design with two groups pretest and posttest. This research was carried out in the work area of the Paduan Rajawali Health Center, Tulang Bawang Regency in June 2021. The population in this study was all 42 pregnant women with the sample used as many as 30 mothers who were divided into 2 groups where 15 respondents were in the experimental group and 15 respondents in the placebo group. The variables used were a combination of lemon and peppermint inhalation and nausea and vomiting in pregnant women. Measuring instruments used in the form of observation sheets and questionnaires. Data analysis was univariate and bivariate.

RESEARCH RESULTS

Characteristics of Respondents

Based on table 1 above, it is known that 30 respondents who were researched 27 (90%) respondents with age not at risk, 17 (56.7%) respondents with high school education, 25 (83.4%) respondents with occupations as housewife, 17 (56.7%) respondents were parity multiparous and 28 (93.3%) respondents with MUAC size > 23.5 cm.

Table. 1
Characteristics of Respondents in the first trimester of pregnant women

Characteristics	Category	Total	%
Age	At risk (< 20 years and > 35 years)	3	10.0
	No-risk (20-35 years old)	27	90.0
Education	Junior high school	13	43.3
	Senior high school	17	56.7
Occupation	Housewife	25	83.4
	Trader	4	13.3
	Self-employed	1	3.3
Parity	Primipara	13	43.3
	Multipara	17	56.7
MUAC	< 23.5 cm	2	6.7
	23.5cm	28	93.3
Total		30	100

Univariate Analysis

The average intensity of nausea and vomiting in pregnant women in the first trimester before and after in the intervention group and the placebo group in the working area of Paduan Rajawali of Tulang Bawang Regency in 2021

Based on table 2 above, it is known that the average nausea and vomiting in the intervention

group before being given citrus and peppermint aromatherapy to the mother was 9.07 with a standard deviation value of 1.16, a minimum value of 7 and a maximum value of 11. Average nausea and vomiting after being given lemon and peppermint in aromatherapy is 5.27 with a standard deviation value of 1.16, a minimum value of 4 and a maximum value of 7.

In the placebo group, it is known that the average nausea and vomiting before being given a placebo to the mother is 8,20 with a standard deviation value of 1.65, a minimum value of 6 and a maximum value of 11. The average value of nausea

and vomiting after being given a placebo of lemon and peppermint to the mother was 6.47 with a standard deviation of 1.59, a minimum value of 4 and a maximum value of 8.

Table 2
Results of univariate analysis for the intervention group and the placebo group

Nauseous vomit	intervention group					placebo group				
	N	Mean	SD	Min	Max	N	mean	SD	Min	Max
Before	15	9.07	1.16	7	11	15	8.20	1.65	6	11
After	15	5.27	1.16	4	7	15	6.47	1.59	4	8

Bivariate Analysis

Based on table 4 above, the results of statistical tests, p-value = 0.001 (p-value < = 0.05) which means that there is an effect of giving a combination of lemon and peppermint aromatherapy

on the intensity of nausea and vomiting in pregnant women in the first trimester in the working area of Paduan Rajawali Health Center of Tulang Bawang Regency in 2021.

Table 3
Results of bivariate analysis for the intervention group and placebo

Group	mean	SD	Different Mean	P- Value
Intervention	3.8	1,207	2.0	0.000
placebo	1.7	0.961		

DISCUSSION

Univariate Analysis

Average intensity of nausea and vomiting in first trimester pregnant women before and after being given a combination of lemon and peppermint aromatherapy in the working area of the Paduan Rajawali Health Center, Tulang Bawang Regency in 2021

Based on the results of the study, it is known that the average nausea and vomiting before being given lemon and peppermint aromatherapy to mothers is 9.07 with a standard deviation value of 1.16, a minimum value of 7 and a maximum value of 11. The average nausea and vomiting after being given lemon and peppermint aromatherapy in mother is 5.27 with a standard deviation of 1.16, a minimum score of 4 and a maximum value of 7.

This is in line with the research of Maesaroh (2019) where the results of the study obtained that the average frequency of nausea and vomiting before the intervention was 17.37 times, while after the intervention it decreased to 12.43 times. Faizah's research (2018) found a decrease in the frequency of emesis gravidarum with an average value of 9.73 in the experimental group. Dainty Maternity Research (2017) from the results of the study, it was found that the frequency of nausea and vomiting before being

given inhalation of lemon aromatherapy obtained an average value of 24.67 and the frequency of nausea and vomiting after being given inhalation of lemon aromatherapy obtained an average of 17.87. The Lubis research (2019) showed that before being given peppermint oil aromatherapy by inhalation the majority of pregnant women experienced moderate nausea and vomiting as many as 12 people (80%) and after being given peppermint oil aromatherapy by inhalation the majority of pregnant women did not experience nausea and vomiting as many as 12 people (80%)). there is a difference in the average score of nausea and vomiting of pregnant women before and after administration of peppermint oil aromatherapy by inhalation of 6.13.

Nausea and vomiting during pregnancy is an unpleasant feeling in the stomach during pregnancy as a result of decreased digestion and intestinal peristalsis and increased stomach acid (Manuaba, 2013). Efforts to reduce the frequency of vomiting can be given several actions such as drugs, on the other hand nausea in early pregnancy can be reduced by using complementary therapies such as herbal or traditional plants that can be done and are easily obtained such as ginger, peppermint leaves, lemon and so on (Amalia, 2019).

Lemon aromatherapy works to increase psychological power. Rose aromatherapy has a refreshing effect, lowers systolic blood pressure and improves memory quality (Cook, 2013). Peppermint aromatherapy is warm and can have the effect of relaxing muscles, relieves shortness of breath when used by inhalation (Koesoemardiyah, 2013). Peppermint has properties to treat nausea and vomiting in pregnant women, this is due to the content of menthol (50%) and methone (10-30%) which is high. In addition, peppermint has long been known to have carminative and antispasmodic effects, which specifically act on the smooth muscles of the gastrointestinal tract and bile ducts.

It was found that in the intervention group before being given lemon and peppermint aromatherapy to the mother was 9.07, the minimum value was 7 and the maximum value was 11. According to the researcher, the nausea and vomiting that occurred in this respondent was the lowest when compared to other respondents because the mother already had experience from previous pregnancies, the mother's age was included in the age that was not at risk and nausea and vomiting that occurred in The respondent is a normal thing due to hormonal changes that occur in the pregnancy process

Results on this study also found that the average nausea and vomiting after being given lemon and peppermint aromatherapy to the mother was 5.27, a minimum value of 4 and a maximum value of 7. There was a decrease in the PUQE value in mothers who were given a combination of citrus and peppermint aromatherapy intervention, where there was a decrease in the PUQE value. with a range of 2-7 PUQE points. There was one respondent with a decrease in PUQE by 7 points, this could happen because the mother was in a good reproductive age condition with the age of 23 years, high school education so that the instructions given and the motivation conveyed by the researcher could be quickly understood by the respondents, as shown It is known that one of the triggering factors for nausea and vomiting in pregnant women is psychological, so when the researcher gives positive directions in reducing nausea and vomiting, it is likely that the mother understands the explanation well so that the mother is calm and added to the intervention given in the form of lemon and peppermint inhalations which have fresh and sweet taste that can bring more comfortable atmosphere.

From the researcher point of view, when the intervention given to the group, it can be concluded that it provided success in reducing nausea and vomiting so that this intervention can be continued for

further care for mothers who feel nausea and vomiting, with the aim of reducing nausea and vomiting that occurs, increasing comfort for the mother during pregnancy.

Average intensity of nausea and vomiting in first trimester pregnant women before and after in the placebo group in the Working Area of Paduan Rajawali Health Center, Tulang Bawang Regency in 2021

Based on the results of the study, it was known that the average nausea and vomiting before being given a placebo in the placebo group was 8.20 with a standard deviation value of 1.65, a minimum value of 6 and a maximum value of 11. The average nausea and vomiting after being given a placebo in the placebo group was 6.47 with the standard deviation value is 1.59, the minimum value is 4 and the maximum value is 8.

In line with Lubis' research (2019), the results showed that before being given peppermint oil aromatherapy by inhalation the majority of pregnant women experienced moderate nausea and vomiting as many as 12 people (80%) and after being given peppermint oil aromatherapy by inhalation the majority of pregnant women did not experience nausea and vomiting as many as 12 people (80%). there is a difference in the average score of nausea and vomiting of pregnant women before and after administration of peppermint oil aromatherapy by inhalation of 6.13. Andriani's research (2017) research results on the level of nausea and vomiting before being given peppermint aromatherapy to pregnant women in the first trimester at the Mlati II Health Center were mostly in the heavy category as many as 9 people (60%). The level of nausea and vomiting after being given peppermint aromatherapy to pregnant women in the first trimester at the Mlati II Health Center was mostly in the mild category as many as 8 people (53.3%). Kartikasari's research (2017) showed that prior to being given peppermint aromatherapy, more than half (70%) of respondents experienced moderate levels of nausea. After being given peppermint aromatherapy, almost all (95%) respondents experienced mild nausea.

Nausea and vomiting during pregnancy is an unpleasant feeling in the stomach during pregnancy as a result of decreased digestion and intestinal peristalsis and increased stomach acid (Manuaba, 2013). Nausea and vomiting in pregnancy are usually mild and can be replaced according to the condition of the pregnant woman. This condition sometimes stops in the first trimester, but its effects can cause nutritional problems, dehydration, weakness, weight loss, and electrolyte imbalances. Nausea and

vomiting in excessive pregnancy or hyperemesis gravidarum not only threatens the life of pregnant women, but can also cause side effects on the fetus such as abortion, low birth weight, premature birth, and malformations in newborns (Atnawati, 2014).

Researchers argue that pregnant women have an increase in kynurenine and xanthurenic acid in the urine. Both of these acids are excreted when the pathway for conversion of tryptophan to niacin is blocked. It can also occur due to vitamin B6 deficiency. High levels of the hormone estrogen in pregnant women also inhibit the action of the enzyme kynureninase which is a catalyst for the conversion of tryptophan to niacin, where a lack of niacin can also trigger nausea and vomiting. First, proteases which have function to break down proteins then lipase which has function to break down fat. These two enzymes help the body digest and absorb food and block serotonin, a chemical messenger that causes the stomach to contract and causes nausea.

According to researchers, nausea and vomiting is often ignored because it is considered a normal consequence of early pregnancy without acknowledging the severe impact it has on women and their families. For some women, symptoms may last all day or may not occur at all when you wake up in the morning. Nausea and vomiting during pregnancy is usually caused by changes in the endocrine system that occurs during pregnancy, mainly due to high fluctuations in HCG levels, in particular because the most common period of gestational nausea and vomiting is in the first 12-16 weeks, at which time HCG reaches its high levels.

Based on the results of the study, it was found that the average nausea and vomiting before being given a placebo was placebo group is 8.20 with a minimum score of 6 and a maximum value of 11. Average nausea and vomiting after being given placebo in the placebo group is 6.47 with a minimum score of 4 and a maximum value of 8. based on the results of the study, it is known that there are 2 respondents who did not experience a decrease in nausea and vomiting with age characteristics that were not at risk, education with high school level, respondents with multiparity and normal MUAC size, This means that the placebo given does not have an effect on perceived nausea and vomiting where the value of calculating the PUQE score does not change, while for other respondents there is a change between 1-3 points, where the PUQE score seems to decrease, this is probably because apart from being given a placebo aromatherapy, the respondent also given counseling information and education about start throw up as well as Positive motivation and direction (reinforcement) were

related to nausea and vomiting, so that respondents had a positive view of reducing nausea and vomiting, but it was seen that the placebo given did not have a significant effect on the perceived nausea and vomiting.

Bivariate Analysis

Based on the results of statistical tests, $p\text{-value} = 0.001$ ($p\text{-value} < = 0.05$) which means that there is an effect of giving a combination of lemon and peppermint aromatherapy on the intensity of nausea and vomiting in first trimester pregnant women in the Paduan Rajawali Community Health Center, Tulang Bawang Regency. 2021 year.

In line with Maesaroh's research (2019) There is an effect of inhalation of lemon aromatherapy on nausea and vomiting in first trimester pregnant women ($p\text{-value} 0.000$). The Lubis research (2019), the results of the Wilcoxon sign rank test, obtained a p value of 0.001 which means that there is an effect of giving peppermint oil aromatherapy by inhalation to reducing nausea and vomiting in pregnant women at PMB Linda Silalahi Pancur Batu. Andriani's research (2017) The results of the Wilcoxon Sign Rank Test obtained a $p\text{-value}$ of 0.001. Conclusion: There is an effect of peppermint aromatherapy on nausea and vomiting in first trimester pregnant women at Mlati II Health Center. Dainty Maternity Research (2017) 87 There is an effect of giving inhaled lemon aromatherapy on morning sickness in pregnant women with $P\text{-value} = 0.000$.

Nausea and vomiting during pregnancy is an unpleasant feeling in the stomach during pregnancy as a result of decreased digestion and intestinal peristalsis and increased stomach acid (Manuaba, 2013). The impact of Hyperemesis Gravidarum is dehydration which causes decreased O_2 consumption, impaired liver function and jaundice occurs, bleeding occurs in the liver parenchyma, causing general function disorders of vital organs and causing death (Manuaba, 2013).

Efforts to overcome nausea and vomiting have many things to do, starting with eating, drinking, taking medication and taking action. Mothers are expected to eat foods with balanced nutrition, namely foods that contain carbohydrates, fats, proteins, vitamins, and minerals. Lack of these nutrients can worsen the mother's condition (Tiran, 2012). Efforts to reduce the frequency of vomiting can be given several actions such as drugs, in addition to drugs, nausea in early pregnancy can be reduced by using complementary therapies such as herbal or traditional plants that can be done and are easily obtained such as ginger, peppermint leaves, lemon and so on (Amalia, 2019).

Peppermint aromatherapy is warm and can relax the muscles, relieve shortness of breath when used by inhalation (Koesoemardiyah, 2013). Peppermint has properties to treat nausea and vomiting in pregnant women, this is due to the high content of menthol (50%) and methone (10-30%). In addition, peppermint has long been known to have carminative and antispasmodic effects, which specifically act on the smooth muscles of the gastrointestinal tract and bile ducts.

Peppermint also contains aromatherapy and essential oils that have pharmacological effects. Peppermint aromatherapy comes from peppermint leaves. Peppermint aromatherapy is warming and can relax the muscles, relieve shortness of breath when used by inhalation (Koesoemardiyah, 2013). According to Snyder and Lindquist (2015), peppermint aromatherapy can be used to relax cramped muscles, improve ingestion and digestion disorders, reduce nausea and vomiting and overcome inability to flatus.

Lemon aromatherapy contains ingredients that can kill meningococcal bacteria (*meningococcus*), *typhoid bacteria*, have antifungal effects and are effective for neutralizing unpleasant odors, and produce anti-anxiety, anti-depressant, anti-stress effects, and to lift and focus the mind (Putri, 2020). Lemon essential oil is the most widely used herbal oil and is considered a medicine that can reduce nausea and vomiting in pregnancy (Materniti, 2016).

According to researchers, the results of this study showed that there was a decrease in the intensity of nausea and vomiting before and after being given a combination of lemon and peppermint aromatherapy. This can be influenced by several factors from the characteristics of the respondents, including:

1. Age

It can be seen that pregnant women aged 35 years experienced the lowest decrease in nausea intensity with a PUQE value of 2. This may be due to the decreased activity of protease and lipase enzymes. That the body has decreased to digest and absorb food.

2. Education

Based on the level of education, it can be seen that pregnant women TM I with a junior high school education background experienced a decrease in the intensity of nausea and vomiting with a PUQE value of 2-4. This shows that low educational status has a poor diet, especially for the fulfillment of vitamins, minerals, protein as well as iron and folic acid content.

3. Occupation

Based on their job, it can be seen that almost all pregnant women in the intervention group who were given lemon and peppermint aromatherapy were housewives (97%), traders (3%).

4. Parity

Based on parity, it can be seen that pregnant women with gravidarum 2 have decreased starting to vomit with the lowest value being PUQE 3 and the highest being PUQE 5. This could be due to the fact that pregnant women with 2nd gravidarum already have experience and knowledge of dealing with malignancy with the onset of vomiting.

5. MUAC

Based on the upper arm circumference, it can be seen that the low MUAC did not affect the decrease in nausea and vomiting. It can be seen that MUAC 23.5 cm experienced a decrease in nausea and vomiting with PUQE 5.

Complementary therapy using herbal plants that can be used to reduce nausea and vomiting during pregnancy is a combination of lemon and peppermint aromatherapy. The combination of lemon and peppermint aromatherapy is also known to be an effective drug that is currently effective for treating nausea and vomiting in pregnant women. Mint leaves contain essential oil, namely menthol which has a mild anesthetic effect to relieve stomach spasms or cramps. Mint leaves also have carminative and antispasmodic effects that work in the small intestine on the gastrointestinal tract so that they are able to overcome or eliminate nausea and vomiting and facilitate the digestive system. Mint leaves contain menthol which can speed up circulation, relieve bloating, nausea and cramps. Mint leaves contain essential oil, namely menthol which has the potential to facilitate the digestive system and relieve stomach spasms or cramps because it has a mild anesthetic effect and contains carminative and antispasmodic effects that work in the small intestine in the gastrointestinal tract so that it can overcome or eliminate nausea and vomiting.

CONCLUSION

From the results of this study, it can be concluded that there is an effect of giving a combination of lemon and peppermint aromatherapy on the intensity of nausea and vomiting in first trimester pregnant women in the working area of Paduan Rajawali Health Center, Tulang Bawang Regency in 2021 (p-value 0.001).

SUGGESTION

Based on this study, pregnant women can apply lemon and peppermint aromatherapy when they are feeling nauseous and vomiting during pregnancy, in order to reduce complaints in pregnancy and make regular visits to health officers in order to carry out health care. As well as Paduan Rajawali Helath Center, this study can be used as SOPs for reducing nausea and vomiting for every pregnant woman with complaints of nausea and vomiting, health officers can provide leaflets in giving intervention of lemon and peppermint aromatherapy for pregnant women with nausea and vomiting and provide education about these interventions. That pregnant women can understand and do it well at home and can remember when they forget by reading leaflets and health officers is expected to provide lemon and peppermint aromatherapy at workplace, inform others that lemon and peppermint aromatherapy can reduce nausea and vomiting.

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