


THE EFFECT OF GIVING PEPPERMINT AROMATHERAPY ON THE INCIDENT OF EMESIS GRAVIDARUM ON TRIMESTER I PREGNANT WOMEN AT TPMB RAHMADINA TUBAN

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Abstract

Background: Nausea and vomiting are one of the signs and symptoms of pregnancy that commonly occur in pregnant women. 50-90% of pregnant women experience nausea in the first trimester. Continuous nausea and vomiting can cause the mother to lack nutrition, thereby inhibiting the growth and development of the fetus. Non-pharmacological management of nausea and vomiting during pregnancy can use aromatherapy. Aromatherapy that can be used comes from a type of citrus, namely peppermint, because it contains antispasmodic charismatic effects. **Objectives:** This study aims to determine the effect of giving peppermint aromatherapy on the incidence of emesis gravidarum in pregnant women in the first trimester at TPMB Rahmadina Tuban. **Methods:** The research design used in this research is quantitative "pre-experimental" using the research method "one-group pre-post test design". The subject group was observed before the intervention (pre-test), then observed again after the intervention (post-test). The population of this study was 20 pregnant women in the 1st trimester at TPMB Rahmadina Tuban who were selected using a simple random sampling technique, obtaining a sample of 16 pregnant women in the 1st trimester with complaints of nausea and vomiting. **Result:** The results of the research conducted showed that before being given peppermint aromatherapy, the majority of 13 (81.25%) pregnant women experienced moderate nausea and vomiting. After being given peppermint aromatherapy, the majority of 12 (75%) pregnant women experienced mild nausea and vomiting. The results of the Wilcoxon sign rank test with a significance level of $\alpha = 0.05$ obtained a value of $0.001 < 0.05$, which means that H1 was accepted, namely that there is an effect of giving peppermint aromatherapy on the incidence of emesis gravidarum in pregnant women in the 1st trimester. **Conclusion:** From the description above, it can be concluded that peppermint aromatherapy has an effect on the incidence of emesis gravidarum (in pregnant women in the 1st trimester at TPMB Rahmadina Tuban).

Keywords: Peppermint aromatherapy, Emesis gravidarum, Pregnant women



INTRODUCTION

Nausea and vomiting or known as emesis gravidarum are one of the early signs of pregnancy. For ordinary people, due to the long menstrual cycle, some pregnant women only realize that they are pregnant after experiencing nausea and vomiting. Nausea and vomiting are one of the common signs and symptoms of pregnancy in pregnant women in the early first trimester of pregnancy, but in some cases it can continue until the second and third trimester of pregnancy but it is rare (Pudiastuti, 2012). This feeling of nausea is caused by an increase in the hormones estrogen and HCG in the serum along with the development of the placenta. The results of the study showed that almost 50-90% of pregnant women experienced nausea in the first trimester (the first 3 months of pregnancy). Early pregnancy nausea and vomiting are common due to sudden increased hormone production. Nausea, vomiting, dizziness, flatulence, and weakness can occur in almost 50% of cases of pregnant women and most often at 6-12 weeks of gestation (1st trimester) (Prawieohardjo, 2002 in Lestari, 2012). Some of the unpleasant conditions when pregnant include stress, morning sickness, loss of appetite, dizziness, and even just because of smelling certain foods (Surininah, 2005). In addition, the sense of taste and smell in pregnant women becomes more sensitive in the early stages of pregnancy (Abidin, 2008).

According to the World Health Organization (WHO) in 2019 occurred all over the world with a variable incidence rate, namely 1-3% of all pregnancies in Indonesia, 0.3% in Sweden, 0.5% in California, 0.8% in China, 0.9% in Norway, 2.2% in Pakistan, 1.9% in Turkey and in the United States the prevalence of nausea and vomiting in pregnant women is 0.5% - 2%. It is estimated that 50% to 80% of pregnant women experience nausea and vomiting. (Khasanah, 2019).

In Indonesia, there are (50-90%) cases of nausea and vomiting experienced by pregnant women. The main factor causing maternal mortality in Indonesia is not nausea and vomiting (emesis gravidarum), but the incidence of nausea and vomiting is quite large, namely (60-80%) in primigravida and (40-60%) in multigravida. One hundred out of 1000 pregnancies experience more severe symptoms (Rahayu RD, and Sugita, 2017).

In East Java in 2011, 67.9% of pregnant women experienced emesis gravidarum known as morning sickness. The incidence of nausea and vomiting occurs in 60-80% of primigravida and 40-60% of multigravida (Junianto, 2012). And based on data from the East Java Health Profile, the incidence of hyperemesis gravidarum in East Java was 10-15% of the number of pregnant women, namely 183,645 people in 2016 (Ministry of Health of the Republic of Indonesia, 2016). Based on the initial survey conducted by the researcher by interviewing 10 pregnant women at TPMB Rahmadina Tuban, from the 10 pregnant women, the results were obtained as many as 8 pregnant women in the 1st trimester (80%) experienced dizziness, no appetite, nausea and vomiting, especially in the morning. then as many as 2 pregnant women in the 2nd and 3rd trimesters (20%) no longer experience these symptoms.

Nausea and vomiting in pregnancy or can be called Nausea Vomiting in Pregnancy (NVP) is one of the most common complaints during pregnancy, morning sickness affects about 70-80% of all pregnant women. Around 60% of women experience vomiting (Afriyanti, 2020). Pregnant women who experience nausea and vomiting generally occur in the 1st trimester of pregnancy. Emesis Gravidarum is a common complaint submitted in young pregnancy, due to the onset of hormonal changes in pregnant women including an increase in the hormone estrogen, progesterone and the release of Human

Chorionic Gonadotropin (HCG) these hormones are what cause Emesis Gravidarum (Manuaba, 2012).

To reduce the incidence of emesis gravidarum can be used pharmacological and non-pharmacological therapy. Pharmacological therapy is the periodic consumption of medications, such as B6, antiemetics, and antihistamines. The provision of effective non-pharmacological therapies to reduce nausea and vomiting can be by regulating a small but frequent diet, drinking water, getting enough rest or can use complementary therapies, including herbal or traditional leaves that can be done and are easy to obtain such as ginger, and aromatherapy. (Veri, N et al, 2020).

Aromatherapy can be one of the ways of relaxation to get rid of nausea and vomiting in early pregnancy. Aromatherapy can also help improve sleep, stress and fatigue. The administration of aromatherapy can reduce nausea and vomiting that occurs in pregnant women with a predetermined dose. Aromatherapy also improves blood circulation, relieves some complaints that often arise during pregnancy and helps to smooth the delivery process.

METHOD

The research design used in the study is using the experimental method (Pre-

experimental). The design of this study uses the One Group Pre-test Post-test Design. The characteristic of this study is to reveal the influence by involving a group of subjects. The group of subjects was observed before the intervention (pre- test), then observed again after the intervention (post-test).

The population in this study is all pregnant women in the 1st trimester who experience nausea and vomiting at the Independent Practice of Midwife Rahmadina Tuban as many as 20 people. The sample used in this study was some pregnant women in the 1st trimester who experienced nausea and vomiting at the Independent Practice of Midwife Rahmadina Tuban which met the criteria of 16 people.

RESULT AND DISCUSSION

Data collection carried out by the researcher obtained information from 16 pregnant women in the 1st trimester who experienced nausea and vomiting and were willing to become respondents. The data are grouped by the researcher into general data and special data, which are described as follows The results of the research on the incidence of Emesis Gravidarum in pregnant women in the first trimester before being given peppermint aromatherapy at TPMB Rahmadina Tuban can be seen in table 1 below

Table 1 Distribution of Frequency of Emesis Gravidarum Incidence in Pregnant Women in the First Trimester Before Peppermint Aromatherapy

| No | Nausea and vomiting | Frequency (f) | Percentage (%) |
|----|---------------------|---------------|----------------|
| 1. | Light | 0 | 0% |
| 2. | Keep | 13 | 81,25% |
| 3. | Heavy | 3 | 18,75% |
| | Sum | 16 | 100% |

Source: Researcher Primary Data in 2024

Based on table 1 the results of the analysis before being given *peppermint aromatherapy* in pregnant women in the 1st trimester who experienced Emesis gravidarum showed that almost all 13 (81.25%) experienced moderate nausea and vomiting.

The results of the research data on the incidence of Emesis Gravidarum in pregnant women in the first trimester after being given *peppermint aromatherapy* at TPMB Rahmadina Tuban can be seen in table below

Table 2 Distribution of Frequency of Emesis Gravidarum Incidence in Pregnant Women in the First Trimester After Peppermint Aromatherapy

| No | Nausea and vomiting | Frequency (f) | Percentage (%) |
|----|---------------------|---------------|----------------|
| 1. | Light | 10 | 62,5% |
| 2. | Keep | 6 | 37,5% |
| 3. | Heavy | 0 | 0% |
| | Sum | 16 | 100% |

Source: Researcher Primary Data in 2024

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Based on table 5.6 The results of the analysis after being given *peppermint aromatherapy* in pregnant women in the 1st trimester who experienced

Emesis gravidarum showed that most of the 10 (62.5%) experienced mild nausea and vomiting

Table 3. Distribution of Frequency of Emesis Gravidarum Incidence in Pregnant Women in the First Trimester After Peppermint Aromatherapy

| PUQE | Emesis Gravidarum | | | Total |
|----------|-------------------|-------------|------------|-----------|
| | Light | Keep | Heavy | |
| Pretest | 0 (0,0%) | 13 (81,25%) | 3 (18,75%) | 16 (100%) |
| Posttest | 10 (62,5%) | 6 (37,5%) | 0 (0%) | 16 (100%) |

Wilcoxon Signed Ranks Asymp. Sig. (2 tailed)=0,001

Source : Researcher Primary Data 2024

Based on table 5.7 The results of the analysis before being given *peppermint aromatherapy* in pregnant women in the 1st trimester who experienced Emesis gravidarum showed that almost all 13 (81.25%) experienced moderate nausea and vomiting. After being given *peppermint aromatherapy* to pregnant women in the 1st

trimester who experienced Emesis gravidarum showed that most of the 12 (75%) experienced mild nausea and vomiting.

Nausea and vomiting in some pregnant women is not only long-term but can occur excessively (Hyperemesis Gravidarum). The condition of emesis gravidarum alone can make it difficult for mothers to get nutritional fulfillment because the nausea and vomiting that

occur can eliminate appetite from pregnant women. Lack of healthy food intake can have a bad impact because this is an important period for the fetus. The nutritional status of pregnant women greatly affects the growth of the fetus being conceived. Pregnant women in Indonesia are one of the groups that are vulnerable to experiencing nutritional problems, especially iron deficiency anemia, where 95% of anemia cases occur during pregnancy due to iron deficiency (iron deficiency anemia) (Purwati, 2015 in Silalahi, 2016). If the mother's nutritional status is not good, it can result in unbalanced nutritional intake so that it has a bad impact on pregnant women and fetuses. Babies with low birth weight (BBLR) can have various negative impacts, namely neonatal death, perinatal morbidity, cerebral palsy and disease (Gardosi et al, 2013 in Ekmawanti, 2017). This situation will be aggravated if the mother's condition before pregnancy has experienced Chronic Energy Deficiency (KEK) which is accompanied by emesis gravidarum at the beginning of excessive pregnancy, so that the impact is maternal and fetal death, neonatal asphyxia, prematurity.

According to Wiknjoastro (2012) Emesis Gravidarum is a physiological thing. However, it will cause discomfort due to a feeling of dizziness, bloating, and weakness, accompanied by the discharge of stomach contents through the mouth, with a frequency of less than 5 times a day in pregnant women in the 1st trimester. Emesis gravidarum if not treated immediately can become pathological (Health RI, 2013). Complaints of vomiting are sometimes so intense that everything that is eaten and drunk is vomited, which is called Hyperemesis Gravidarum. So that it can affect the general condition and interfere with daily work, weight loss, dehydration, there is acetone in the urine (Saifuddin, 2012). Nausea and vomiting (Emesis Gravidarum) if it occurs

continuously and is not treated properly, it will cause severe symptoms of nausea and vomiting (Hyperemesis Gravidarum) which has a bad effect on the health of the mother and fetus, this condition can slow down blood circulation so that the supply of oxygen and nutrients to the body is also reduced, this can cause tissue damage that endangers the health of the mother and fetus (Sari, 2018).

Peppermint aromatherapy is known to be a safe and effective drug to treat nausea and vomiting in pregnant women. Mint leaves contain essential oil, namely menthol which has a mild anesthetic effect to relieve stomach cramps or cramps. Mint leaves also have a carminative and antispasmodic effect that works in the small intestine in the gastrointestinal tract so that it is able to overcome or eliminate nausea and vomiting and smooth the digestive system. Aromatherapy that contains molecules or chemical particles such as menthol and menthone can reduce complaints of nausea and vomiting because of its fresh aroma and help rehabilitate and maintain health, increase spirits, and calm the soul, and stimulate the healing process.

When Peppermint oil is sucked, the molecules will enter the respiratory tract and stimulate the limbic system in the brain, the limbic system in the brain will stimulate the hypothalamus from the hypothalamus to the pituitary gland which finally gives rise to a fresh and comfortable perception for the patient. This is in line with previous research In Zuraida's (2018) research, Peppermint contains 50% menthol and 10-30% menthone. Aromatherapy content is also found in Peppermint which can provide pharmacological therapy. Aromatherapy is the provision of therapy where essential oils or pure oil essences are used which have an impact on health, increase spirits, refresh and provide comfort (Astuti, 2015).

CONCLUSION AND SUGGESTION

The results of the study entitled "The Effect of Peppermint Aromatherapy on the Incidence of Emesis Gravidarum in Pregnant Women in the 1st Trimester at TPMB Rahmadina Tuban" can be concluded as follows: Almost all of the 1st Trimester Pregnant Women at TPMB Rahmadina Tuban before being given Peppermint Aromatherapy experienced moderate nausea and vomiting. Most of the 1st trimester pregnant women at TPMB Rahmadina Tuban after being given Peppermint Aromatherapy experienced mild nausea and vomiting. There was a significant effect of peppermint aromatherapy on the incidence of emesis gravidarum (in pregnant women in the 1st trimester at TPMB Rahmadina Tuban). It is hoped that respondents, especially for pregnant women in the 1st trimester, can use *peppermint aromatherapy* as a complementary therapy to reduce the incidence of emesis gravidarum in pregnant women. the institution can be used as a reference in further research, as a consideration for those interested in continuing similar research. For TPMB to be able to apply and teach non-pharmacological (complementary) therapy to overcome nausea and vomiting in pregnant women, namely by providing *peppermint aromatherapy*. The next researcher can use peppermint aromatherapy at different doses or compare the effectiveness of peppermint aromatherapy with other aromatherapy and develop this study using a larger sample.

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This research is the first experience for the researcher so that the lack of experience and supporting knowledge possessed by the researcher to carry out good research is an obstacle in research. In addition, research is conducted at TPMB which provides limited

time and place so that when conducting research it becomes less than optimal.

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