

Aromatherapy blended lemon and lavender has an effect on nausea and vomiting in first trimester pregnant women at PMB Entin Hartini

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ABSTRACT

Background Nausea and vomiting are common complaints in the first trimester of pregnancy. One treatment to reduce nausea and vomiting is non-pharmacological therapy by providing a mixture of lemon and lavender aromatherapy. In this study, there was only one group, namely the intervention group, which received blended lemon and lavender aromatherapy. Before carrying out the intervention, pregnant women in the first trimester are given a pre-test to find out how often pregnant women feel nauseous and vomit. Then the pregnant mother is taught how to use aromatherapy blended lemon and Lavender with Roll On which will be done in the morning and evening for 6 consecutive days. -continuously. Next, another post-test was carried out to determine the effectiveness of providing aromatherapy.

Objectives: The aim of this study was to determine the effectiveness of giving a mixture of lemon and lavender aromatherapy against nausea and vomiting in first trimester pregnant women at PMB (Independent Midwife Practice) Entin Hartini, A.Md. Keb Mrebet District, Purbalingga Regency.

Methods: The type of research used in this research is pre-experimental with a One Group Pre-Test and Post-Test design.

Results: The Wilcoxon test results were obtained by Asymp. signature. 0.00 that there is an effect of giving a mixture of lemon and lavender aromatherapy in reducing nausea and vomiting (p -value = 0.00).

Conclusions: There is effectiveness of giving a mixture of lemon and lavender aromatherapy for nausea and vomiting in first trimester pregnant women at PMB Entin Hartini, A.Md.Keb

KEYWORD: lemon and lavender blended aromatherapy; first trimester pregnancy; nausea and vomiting

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INTRODUCTION

Pregnancy is a physiological condition in a woman's life. Pregnancy is accompanied by physical, mental, social changes and disturbing feelings, which pregnant women often experience in the first trimester, namely nausea and vomiting (1). Nausea (nause) and vomiting (emesis gravidarum) Experienced in the morning until all the time, these symptoms are experienced at the age of 6 weeks to 10 weeks from HPHT. Nausea and vomiting account for 60-80% of primigravida and 40-60% of multigravida. 70-80% of pregnant women experience nausea and vomiting, with 1% to 2% suffering from severe nausea and vomiting (2).

The cause of nausea and vomiting in pregnancy is increased concentration of placental HCG (Human Chorionic Gonadotropin). HCG is the result of an imbalance of the hormones estrogen and progesterone (3). Estrogen, especially estradiol, plays a role in nausea and vomiting that occurs during pregnancy. Nausea is an uncomfortable condition in the back of the epigastrium and esophagus that causes symptoms of the gag reflex, characterized by the expulsion of intestinal or stomach contents into the mouth. When HCG production is at its highest point (4).

Continuous nausea and vomiting that is not treated immediately can have a bad

impact resulting in hyperemesis gravidarum because the decrease in body fluids makes the mother weak, blood thickening slows blood circulation, which disrupts the delivery of oxygen and nutrients to the tissues, threatening the safety of the mother and her womb. Causes malnutrition and results in a lack of nutrition obtained by the fetus, resulting in premature or LBW babies and causing death in the mother and fetus (4).

Based on data from the World Health Organization (WHO), 534 pregnant women experienced nausea and vomiting in Indonesia. The number in the world is 0.5% in California, 0.3% in Sweden, 10.8% in China, 0.9%, 0.8% in Canada, 1.9% in Turkey, and 2.2% in Pakistan (5). The results in the Central Java Province report in 2018 showed that 29.23% of mothers experienced nausea and vomiting in urban areas and 27.15% in rural areas (6). The number in Purbalingga Regency of pregnant women who had pregnancy complications was 2,919 and 51.16% experienced nausea and vomiting (7)

Based on data from PMB (Independent Midwife Practice) Entin Hartini, A.Md.Keb, Mrebet District, Purbalingga Regency, Central Java Province in 2023, the target is 55 pregnant women in the first trimester, with 36 pregnant women in the first trimester (65.45%) complaining

of nausea, vomiting, This figure shows that nausea and vomiting of pregnant women in the first trimester at PMB Entin Hartini, A.Md. Keb is considered high (PMB Entih Hartini, A.Md. Keb 2023).

There are two different approaches to dealing with nausea and vomiting: pharmacological and non-pharmacological. Pharmacological therapy is carried out by administering antihistamines, antiemetics, corticosteroids and anticholinergic drugs (1). When experiencing nausea and vomiting, pregnant women take vitamin B6 medication, but it has side effects such as diarrhea, lethargy and migraines. Based on BPOM data, "side effects from antihistamines include psychomotor disorders, headaches, dry mouth, urinary retention, digestive tract disorders and blurred vision." So pregnant women must immediately treat nausea and vomiting using non-pharmacological treatments because they are non-invasive, non-instructive, effective, simple, and have minimal side effects (1).

In treating nausea and vomiting during pregnancy, non-pharmacological treatment is one alternative that can be taken. This therapy includes acupressure techniques, acupuncture, aromatherapy, and ginger extract (8). Non-pharmacological measures recommend carrying out aromatherapy, such as lemon aromatherapy. Essential oils

obtained from lemons are often used in aromatherapy. Lemon aromatherapy is safe for pregnancy and contains geranyl acetate, limonene 66-80%, linalyl acetate, nerol, γ pinene 1-4%, δ pinene 0.4-15%, terpinene 6-14% and myrcen. The chemicals nerol, linalyl acetate, and geranyl acetate have antidepressant, antispasmodic, antiseptic properties, as a mild sedative, effectively helping improve and focus the mind (9).

And lavender aromatherapy can reduce the frequency of nausea and vomiting in first trimester pregnant women, lavender oil has a number of benefits because it contains: alpha pinene (0.22%), essential oil (1-3%), betamyrcene (5.33%), limonene (1.06%), camphene (0.06%), linalool (26.12%), P-cymene (0.3%), terpinen (- 4-ol (4.64%), cineol (0.51%), geranyl acetate (2.14%), borneol 37 (1.21%), caryophyllene (7.55%), and linalyl acetate (26.23%) can provide a sense of calm, reduce anxiety, improve mood, reducing the frequency of vomiting and nausea, as well as a relaxing effect (10).

Providing aromatherapy is done by asking the mother to inhale aromatherapy 3 times with repetitions of 5 minutes, then carried out once a day every morning for 7 days (11). Before being given the intervention, the frequency of nausea and vomiting was 10 times a day, after being given the

intervention, the frequency of nausea and vomiting decreased to 4 times a day. When essential oils are inhaled, the active substances enter the nasal cavity, stimulating the limbic system to control emotions related to the pituitary gland, adrenal glands, which control heart rate, hypothalamus, stress, hormonal balance, blood pressure, breathing and memory (12).

The results of interviews with 8 pregnant women in the first trimester showed that 6 mothers said they did not know how to reduce nausea and vomiting non-pharmacologically, while the other 2 people had received information from social media and had practiced ways to reduce nausea and vomiting, namely using eucalyptus oil and making drinks. ginger. Based on the preliminary study that has been explained, the researcher wants to conduct research on "The Effectiveness of Blended Lemon and Lavender Aromatherapy Against Nausea and Vomiting in Pregnant Women in the First Trimester at PMB Entin Hartini, A.Md. Keb, Mrebet District, Purbalingga Regency." The aim was to determine the effectiveness of blended lemon and lavender aromatherapy against nausea and vomiting in first trimester pregnant women at PMB (Independent Midwife Practice) Entin Hartini, A.Md. Keb in 2023".

Factors causing nausea and vomiting in the first trimester of pregnancy are:

Age due to the immaturity of mental, physical and social functions of prospective mothers, nausea and vomiting can be felt by young mothers aged less than 20 years, resulting in decreased affection, physical doubts and worries about the child they will give birth to. (13). Education level is an example of a social factor that can influence a person's reaction to something. Health education is a systematic approach to reviewing the differences between health-related knowledge and health practices in motivating individuals to take action to stay healthy by preventing dangerous behavior (14). Employment The initial commute to work, which may be hastened due to time constraints, may cause nausea and vomiting. Depending on the nature of a woman's work, substances, smells or the surrounding environment can aggravate nausea and cause vomiting (13). Parity Primigravidas generally cannot adapt to the hormones estrogen and chorionic gonadotropin, so they are more likely to experience vomiting and nausea (13). However, it does not rule out the possibility that multigravida with a history of previous pregnancies also causes nausea and vomiting, because

pregnant women with nausea and vomiting are more likely to experience symptoms in subsequent pregnancies (15).

General Objectives : "Knowing the effectiveness of blended lemon and lavender aromatherapy against nausea and vomiting in first trimester pregnant women at PMB Entin Hartini, A.Md. Keb in 2023."

MATERIALS AND METHODS

The research design is Pre Experimental with a One Group Pretest and Posttest approach. The population of this study were pregnant women in the first trimester at PMB Entin Hartini, A.Md. Keb with complaints of nausea and vomiting with Inclusion Criteria: Pregnant women in the first trimester, Pregnant women who are willing to be respondents, take part in the research, and follow the research rules, Pregnant women who experience nausea and vomiting, Pregnant women who are willing to use blended lemon and lavender aromatherapy, Pregnant women who carried out ANC examinations in the PMB Entin Hartini, A.Md.Keb area in 2023, pregnant women who were not using other interventions, both pharmacological and non-pharmacological, to reduce nausea and vomiting. The research sample consisted of 36 pregnant women in the first

trimester with complaints of nausea and vomiting. The sampling methodology used is total sampling where the number of samples selected is equivalent to the size of the population being considered. The research has received official permission from the Unissula Medical/Health Research Bioethics Commission with reference number 283/VII/2023. The research procedure provides information regarding the explanation of filling out the questionnaire to the respondent and explains in advance to the respondent how to collect research data, namely by giving informed consent to pregnant women in the first trimester and being given an observation sheet which is required to fill in the identity as well as a nausea and vomiting questionnaire. Next, the pregnant mother is taught how to use the aromatherapy mixture of lemon and lavender with Roll On which is carried out in the morning and evening for 6 consecutive days to combine the mother by combining via WhatsApp media and asking the mother to send documentation of each use and whether the mother needs to record it on the observation sheet. presence.

Pregnancy Unique Quantification of Emesis and Nausea (PUEQ) is a questionnaire designed to identify pregnant women with hyperemesis gravidarum. In Norway, the PUQE

assessment has been validated as a reliable indicator of hyperemesis gravidarum. In the UK, the PUEQ questionnaire has been created to assess hyperemesis in pregnant women. Previously, there was no standard method to define, measure, or initiate treatment for hyperemesis (16).

This questionnaire consists of three questions regarding the duration of vomiting, nausea, and average nausea and vomiting, as well as one question that assesses global psychological and physical quality of life. Initially, the questionnaire was evaluated 12 hours in advance, but this was changed to 24 hours in advance. Apart from the first trimester of pregnancy. PUQE scores have been validated. In addition, the PUQE questionnaire has been used in a number of studies to determine the efficacy of tiemetic therapy for emesis and hyperemesis (16).

The PUQE questionnaire has been translated and used in a number of languages: Turkish, Indonesian, Spanish and Italian have versions that have never been produced in Scandinavian languages. This questionnaire was translated and a validation study was carried out in introducing the PUQE as an instrument for diagnosing and transmitting hyperemesis gravidarum in Norway. The PUQE questionnaire can be used to differentiate between normal

morning sickness and nausea and vomiting of pregnancy/HEG (16).

Each of the three PUQE questions is scored on a scale of 1 to 5, resulting in a total (PUQE score) ranging from 3 to 15. Mild is defined as a score between 3 and 6 points, moderate is 7 to 12 points, and severe or Hyperemesis Gravidarum is defined as a score below 13 points, as in previous research's quality of life (QOL) questions, is similar to that used to validate the PUQE, namely a rating scale of the mother's current well-being ranging from 0 (worst) to 10 (as good as she felt before the start of this pregnancy) (16). (17) stated that PUQE had undergone validation by Koren et al. (2005) and subsequent modifications by Ebrahimi, Mastepe, Bounissen, and Koren (2009), resulting in the development of the 24-hour PUQE scoring system. This tool has been used by many researchers to transmit the intensity level of nausea and vomiting during pregnancy within 24 hours (17).

This research carried out a bivariate analysis to see the correlation effect between giving Lemon and Lavender blended aromatherapy to the incidence of nausea and vomiting in first trimester pregnant women. Before carrying out bivariate analysis, a normality test is usually carried out to see the distribution of the data. The Shapiro-Wilk test is used as a normality test in this study because

the sample size is very small, namely <50 observations. The results of the pre-test data normality test produced a significance value of 0.002, indicating that the significance level of the pre-test data was <0.05. This shows that the data is not distributed regularly. On the other hand, the post-test significance value is 0.002, which is still below the predetermined alpha level of 0.05, thus showing that the data is not normally distributed. Data analysis generally uses a non-parametric statistical test called the Wilcoxon test. .

RESULTS AND DISCUSSION

RESULTS

Univariate Analysis

Based on **Table 1** shows that a total of 36 participants were identified as pregnant women in the first trimester. The dominant age group is in the range of 20 to 35 years. A total of 27 participants, accounting for 75.0% of the sample, responded to the survey. The findings showed that the majority of participants, especially 27 respondents (75.0%), did not have children or were in the early stages of pregnancy (primigravida).

Table 1. Characteristics of respondents based on age, parity, education, occupation

Characteristics	Frequency (n)	Percentage (%)
Age		
<20 years old	6	16.7%
20-35 years old	27	75.0%
>35 years old	3	8.3%
Total	36	100 %
Parity		
Primigravida	27	75.0%
Multigravida	9	25.0%
Total	36	100 %
Education		
Junior high school	10	27.8%
Senior high school	20	55.6%
D3	2	5.6%
S1	4	11.1%
Total	36	100%
Occupation		
Housewife	25	69.4%
Self-employed	9	25.0%
Civil servants	2	5.6%
Total	36	100%

Table 2 Nausea and vomiting in first trimester pregnant women before intervention

Category	Frequency (n)	Percentage (%)
< 6 light	2	5.6%
7-12 currently Medium	34	94.4%
Total	36	100 %

The results showed that the majority of participants, specifically 55.6%, had at least a high school diploma. Most respondents, including 69.4% or 25 people, reported their work as housewives.

Based on **Table 2** the majority of respondents before the lemon and lavender blended aromatherapy intervention were in the moderate nausea and vomiting category with 34 respondents (94.4%).

Table 3 Nausea and Vomiting in First Trimester Pregnant Women After Intervention

Category	Frequency (n)	Percentage (%)
< 6 light	30	83.3%
7-12 Medium	6	16.7%
Total	36	100 %

Based on **Table 3** the majority of respondents after being given the blended lemon and lavender

aromatherapy intervention were in the mild nausea and vomiting group, amounting to 30 respondents, 83.3 (%).

Bivariate Analysis

Table 4. Wilcoxon Test for the Effectiveness of Lemon and Lavender Blended Aromatherapy (pre-test and post-test)

Variable	N	Mean
<i>Pre-Test</i>	36	10.0
<i>Post-Test</i>	36	5.0
Asymp. Sig.	0.00	

DISCUSSION

Age

Based on the characteristics observed, research findings show that the majority of participants were in the 20-35 year age range, including 27 respondents (75.0%). Apart from that, the proportion of respondents was smaller, namely 3 people (8.3%) were over 35 years old, while 6 respondents (16.7%) were under 20 years old.

It can be seen that the 20-35 year age group constituted the largest proportion of responses, with a total of 27 people, covering 75.0% of the sample. The presence of physical and psychological maturity in pregnant women is not a reliable indicator for the frequency of nausea and vomiting, on the contrary. This finding is relevant to research by (8) who reported that the 20-35 year age group had the highest incidence of nausea and vomiting, namely 89% of respondents (18).

Several studies explain the existence of several factors such as psychological factors, namely psychological factors, anxiety, stress levels, such as the individual showing emotional instability, showing difficulty in managing their emotions, and facing challenges in accepting their current pregnancy. This phenomenon has the potential to cause stress and cause psychological turmoil, causing symptoms

of nausea and vomiting in mothers due to their negligence in consuming proper nutrition (19)

Parity

Based on the characteristics observed, it can be concluded that the majority of respondents do not have children and are experiencing their first pregnancy, namely 27 people, which is 75.0% of the sample. In contrast, 9 respondents, constituting 25.0% of the sample, had been pregnant before and already had children.

The occurrence of nausea and vomiting in pregnant women may also be influenced by parity. Based on (20) primigravida women or those who are pregnant for the first time have a higher prevalence of nausea and vomiting than multigravida women who experience multiple pregnancies. This phenomenon is caused by the limited ability of primigravidas to adapt to the hormone Chorionic Gonadotropin (hCG), which results in an increased frequency of nausea and vomiting. In contrast, multigravidas have the ability to adapt to hCG.

Mothers who are pregnant for the first time, known as primigravida mothers, tend to have a higher incidence of nausea and vomiting than mothers who have had multiple pregnancies or are called multigravida mothers. This

correlation may be related to the early pregnancy experiences of primigravid mothers. When mothers experience difficulty in adapting to the physiological changes that occur in their bodies during pregnancy, especially in primigravida mothers, the mother's response to emesis gravidarum tends to be less than optimal. This could result from a lack of understanding of non-pharmacological therapeutic approaches and a greater reliance on conventional treatment methods. The field of pharmacology includes the study of drugs and their effects on living organisms (21).

Education

Based on the level of education, 10 respondents (27.8%) had a junior high school education, 20 respondents had a high school education (55.6%), 2 respondents had a diploma III education (5.6%), 4 respondents had a bachelor's degree (11.1%). Several studies explain that the level of education is an example of a social factor that can influence a person's reaction to something. Health education is a systematic approach to narrowing the gap between health-related knowledge and health practices in motivating individuals to take action to stay healthy by preventing dangerous behavior (14)

Education can have an impact on a person's actions, including their

approach to lifestyle, in particular by encouraging participation in health improvement. Knowledge acquisition becomes more efficient with increasing educational attainment, resulting in a greater diversity of knowledge patterns (14).

Work

The data shows that the majority of participants carry out household tasks, namely 25 people or 69.4% of the sample. Additionally, 9 respondents, or 25.0%, identified themselves as entrepreneurs, while civil servants constituted a smaller group of the population, including 2 people or 5.6% of the total respondents.

Several studies have explained that traveling to work, especially when rushed in the morning due to time constraints, has the potential to cause symptoms of nausea and vomiting. The presence of certain aromas, medications, or environmental factors has the potential to worsen feelings of nausea and induce vomiting in women, depending on the specific nature of their work activities (13).

The findings of this research are relevant to the research of (22). revealed that the majority of pregnant women who experience symptoms of nausea and vomiting are found in mothers who do not work. Specifically, out of the total sample

size of 56 respondents, 47 people, accounting for approximately 83.8% of participants, fell into this category. Based on research conducted by Mariantri, Y. Lestrai, and W. Arneliwati (2014), the findings show that the majority of participants, especially 27 people (71.1%), who took part in this study were identified as housewives and reported experiencing emesis gravidarum (22).

It can be concluded that work has an influence on the occurrence of emesis gravidarum. An optimal work environment characterized by good health practices and controlled levels of physical and psychological demands may contribute to a reduction in the occurrence of excessive or atypical vomiting. Creating a healthy work environment requires collaborative efforts from all individuals in the workplace, supported by clear policies and regulations set by the agency or office administration. Apart from that, the workload, both physical and psychological, is often a concern. Currently, there are government restrictions regarding female workers in the context of childbirth, breastfeeding and pregnancy. If implemented effectively in a professional environment, this initiative has the potential to provide significant benefits for prospective female employees (13).

Nausea and Vomiting in First Trimester Pregnant Women before intervention

Research findings before the intervention regarding the prevalence of nausea and vomiting showed that the majority of participants reported experiencing moderate symptoms, 2 respondents (5.6%) reported mild symptoms, and 34 respondents (94.4%) reported moderate nausea and vomiting. Participants who reported experiencing moderate levels of nausea and vomiting were individuals who obtained a cumulative score of 7-12 on the pretest questionnaire, taking into account their gestational age. Most pregnant women generally experience symptoms of nausea and vomiting during the pregnancy period between 9 and 12 weeks. This phenomenon occurs due to a progressive increase in levels from the day of implantation, reaching a peak approximately three days later. The duration ranges from 60 to 70 days. Next, there is a progressive decrease in concentration levels until they reach a nadir, usually observed between days 100 and 130 (23).

Pregnancy is a biological condition characterized by physiological changes that manifest in both physical and psychological domains. An example of an important change is the manifestation

of nausea and vomiting during pregnancy. Nausea and vomiting generally appear as symptoms in pregnant women during the early trimester of pregnancy. This discomfort arises due to physiological changes in a woman's body. Nausea and vomiting in pregnant women can be caused by an increase in the hCG hormone in their physiological system. Failure to treat these complaints can result in dehydration, the development of nutritional problems, weight loss in pregnant women and decreased energy levels. If this ongoing event continues, it will correlate with the pregnancy period as well as the maturation and progress of the embryo (23).

Nausea and Vomiting in First Trimester Pregnant Women after intervention

After giving the lemon and lavender blended aromatherapy intervention to pregnant women in the first trimester with symptoms of nausea and vomiting, these symptoms decreased. Specifically, 30 participants (83.3%) reported a decrease in mild nausea and vomiting, while 6 participants (16.7%) reported a decrease in moderate nausea and vomiting. Among the six participants who continued to report moderate levels of nausea and vomiting, their questionnaire scores showed relatively smaller declines compared with the other participants. Consequently, the results

were consistent, indicating persistent moderate levels of nausea and vomiting. Participants who reported mild nausea and vomiting were those who obtained a cumulative score of 4-6 on the posttest questionnaire indicating symptoms of mild nausea and vomiting.

The observed decrease in the average incidence of nausea and vomiting may be attributed to the potential of aromatherapy to reduce the frequency of these symptoms during pregnancy. This effect is believed to be facilitated by the refreshing fragrance of aromatherapy, which has been shown to improve or maintain well-being, foster enthusiasm and enthusiasm, rejuvenate and soothe the spirit, and encourage the healing process. When inhaled, essential oil molecules pass through the nasal cavity, causing stimulation of the limbic system located in the brain. The physical system includes various components that influence emotions and memory, and is directly correlated with the adrenal glands, pituitary gland, hypothalamus, and other body structures responsible for regulating blood pressure, heart rate, memory formation, stress response, respiratory function and balance. hormonal. Use of this intervention has demonstrated efficacy in reducing symptoms of nausea and vomiting (24).

Effectiveness of Blended Lemon and Lavender Aromatherapy Against Nausea and Vomiting in First Trimester Pregnant Women

Based on the results of the Wilcoxon test which was carried out to assess the efficacy of the study, it was found that the average prevalence of nausea and vomiting before the intervention was given was 10.0%. After implementing the lemon and lavender blended aromatherapy intervention for 6 days, accompanied by repeated measurements, the prevalence of nausea and vomiting decreased to 5.0%. This subtraction produces an average value of 6.0% and Asymp.Sig. from 0.00. The data presented shows that the use of blended lemon and lavender aromatherapy provides positive results in reducing the incidence of nausea and vomiting in pregnant women in the early trimester of pregnancy.

The findings of this research are confirmed by previous research conducted by (25) regarding this study examining the efficacy of lemon aromatherapy as a potential treatment for emesis gravidarum in pregnant women during the first trimester. The findings of this research show that the Paired t-test produces a p-value of 0.017 which shows that inhalation of lemon aromatherapy is efficacious in reducing emesis

gravidarum in first trimester pregnant women.

Research by (26), revealed that after administering lavender aromatherapy, a decrease in the severity of symptoms on the scale of nausea and vomiting was seen. There is a statistically significant relationship between the reduction in nausea and vomiting before and after the application of lavender aromatherapy, indicated by a p-value of 0.000, which is below the predetermined alpha level of 0.05 (26).

Based on research by (27), nausea and vomiting during pregnancy are manifestations of hormonal fluctuations in the endocrine system, mainly caused by increased levels of HCG. Providing aromatherapy with a duration of 10-15 minutes over a period of 6 days has been proven to relieve these symptoms in pregnant women. This positive effect can be attributed to the relaxation and comfort brought about by aromatherapy, thereby reducing nausea and vomiting during pregnancy. Providing aromatherapy has been proven to have the potential to increase a person's self-control in managing symptoms of nausea and vomiting. This phenomenon is supported by empirical evidence which shows a reduction in nausea and vomiting in pregnant women after giving aromatherapy. The sample used was 20 people, where it was discovered that

before being given aromatherapy, 14 participants reported moderate symptoms, 3 people reported severe symptoms, and 3 participants reported experiencing mild symptoms of nausea and vomiting. Furthermore, after administering aromatherapy, there was a decrease in the incidence of nausea and vomiting. Specifically, of the 14 participants who initially reported moderate symptoms, 13 experienced a reduction in symptoms to mild. However, among the 6 participants who initially reported moderate symptoms, there was a reduction, although their symptoms were still in the moderate severity range. Specifically, participants reported a reduction in symptom intensity, along with feelings of calm and relaxation. In addition, one of the participants who initially experienced severe symptoms also reported a decrease in the severity of his symptoms (27).

CONCLUSION AND REKOMENDATION

The majority of respondents were based on age categories with the highest number of answers being 20-35 years, 27 people or covering 75.0% of the total respondents. According to the parity concept, the majority of participants did not have children or were recently pregnant, namely 27 people (75.0%) of the total respondents. Based on the educational background of the

participants, most of the 20 respondents (55.6%) had a high school education. Based on occupation, the dominant employment status of mothers is as a housewife, with the majority being 25 people or 69.4% of the sample. Before implementing the intervention, the majority of participants experienced moderate levels of nausea and vomiting, as indicated by 34 respondents, which was 94.4% of the total sample. After implementing the intervention, most participants experienced mild symptoms of nausea and vomiting. Specifically, 83.3% of respondents, which is equivalent to 30 people from the total sample. There is effectiveness of giving blended lemon and lavender aromatherapy against nausea and vomiting in TM I pregnant women with $Asymp$ value. Sig. 0.00 (p -value < 0.05). Midwives are expected to have the ability to provide information and expertise regarding the use of blended lemon and lavender aromatherapy as an effort to mitigate nausea and vomiting in pregnant women. For educational institutions, this research aims to contribute to existing literature by exploring the potential benefits of combining blended lemon and lavender aromatherapy as an alternative approach to reducing symptoms of nausea and vomiting during pregnancy. For future researchers, there is an aspiration to conduct more

comprehensive research regarding the efficacy of blended lemon and lavender aromatherapy as an effort to mitigate nausea and vomiting in pregnant women. This requires expanding the scope of the study and increasing the sample size to ascertain the magnitude of the impact of complementary therapies in reducing pregnancy-related symptoms. For pregnant women in the first trimester, pregnant women are advised to use blended lemon and lavender aromatherapy as a potential alternative method to mitigate symptoms of nausea and vomiting.

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