

GIVING LEMON AROMATHERAPY TO REDUCE NAUSEA FOR PREGNANT WOMEN IN THE FIRST TRIMESTER AT THE LIMBANGAN HEALTH CENTER

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ABSTRACT

Pregnancy is the union of spermatozoa and ovum followed by the implantation of the products of conception into the endometrium. Pregnancy is a physiological part of a woman's life. This process will cause physical, psychological, and social changes that are influenced by various physical, psychological, environmental, socio-cultural, and economic factors. Pregnancy is usually accompanied by discomfort, and one of the events that is often experienced by pregnant women is nausea and vomiting, especially in the first trimester of pregnancy. The effects of nausea and vomiting if not treated properly, can cause severe (refractory) and persistent nausea and vomiting symptoms in early pregnancy leading to dehydration, electrolyte balance or nutritional deficiencies called hyperemesis gravidarum. One of the non-pharmacological treatments that can be given is lemon aromatherapy. The purpose of this study was to compile a resume of nursing care in presenting lemon aromatherapy to reduce nausea in first trimester pregnant women. This Case study uses a pretest posttest design. The subjects of this study were 2 respondents with 1st trimester nausea in the Limbangan Health Center area, Kendal according to the criteria.

Keywords : Pregnancy, lemon aromatherapy, nausea and vomiting (nausea)

BACKGROUND

Pregnancy is the union of sperm and egg and then the products of conception are implanted into the endometrium. The gestation period starts from conception until the birth of the fetus (Atiqoh, 2020). Pregnancy is a physiological part of a woman's life. This process will cause physical, psychological, and social changes that are influenced by various physical, psychological, environmental, socio-cultural, and economic factors. Pregnancy is usually accompanied by discomfort, and one of the most common discomforts experienced by pregnant women is nausea and vomiting (vomiting during pregnancy), especially in the first trimester of pregnancy.

According to the International Federation of Obstetrics and Gynecology, pregnancy is defined as the fertilization and union of a spermatozoa and an ovum and subsequent nidation or implantation. When calculated from the time of fertilization to the birth of the baby, a normal pregnancy will take place within 40 weeks or 10 months or 9 months according to the international calendar. So, it can be concluded that pregnancy is the meeting of the egg and sperm in the uterus or outside the uterus and ends with the expulsion of the baby and placenta through the birth canal (Fatimah, 2017).

The first trimester of pregnancy is pregnancy from 0 to 12 weeks. This period is an important period for the growth and development of the fetal brain, heart, nervous system, and reproduction. In the first week of pregnancy, the thing that is often complained of by pregnant women is nausea (the feeling of wanting to vomit) and is often accompanied by vomiting. This symptom is more popularly known as morning sickness (pain in the morning), but this symptom can occur at any time (MacDougall, 2003).

The first trimester is a time of crisis when the fetus is in the early stages of forming organs. If the fetus is deficient in certain nutrients, the formation of the perfect organ will fail. In addition, the fetus is at risk for underweight at birth. Nausea gravidarum (NVP) or better known as morning sickness is a symptom of nausea usually accompanied by vomiting that usually occurs in early pregnancy, usually the first trimester. Due to increased levels of the hormone estrogen, more than half of pregnant women usually experience this condition. In some cases, women who use hormonal contraception, or receive some form of hormonal therapy may also experience the same symptoms. These symptoms usually appear in the morning and the frequency decreases every day with increasing gestational age (Yelmi Reni, 2020).

Morning sickness is also known as nausea gravidarum (Emesis Gravidarum). It is a condition that affects more than 50% of pregnant women. Morning sickness is a term due to the fact that nausea and vomiting can occur at any time. In some pregnant women, these signs occur in the morning but in other pregnant women they can occur in the morning, afternoon, evening or even at night. The intensity of these symptoms may vary from one mother to another. Overall this condition affects about pregnant women during the 1st trimester. About 50% of all pregnant women

experience nausea and vomiting, only nausea and others nausea and vomiting. Nausea can be mild or cause vomiting. In extreme cases, severe vomiting causes dehydration, weight loss, alkaliosis and hypokalemia. This extreme condition is called hyperemesis gravidarum which occurs in 1% of all pregnancies. Nausea and vomiting can be early pregnancy which usually starts in the 6th week of pregnancy. Nausea and vomiting can occur throughout the day where most women stop nausea after 12 weeks of pregnancy.

Most nausea and vomiting during pregnancy occurs between 9-10 weeks of pregnancy. The incidence is decreasing and is expected to end at 12-14 weeks of gestation. A small portion lasts until the gestational age of 20-24 weeks. Nausea and vomiting are common symptoms in the early stages of pregnancy. The occurrence of pregnancy will cause hormonal changes in women because the release of the hormones estrogen, progesterone, and human chorionic gonadotropin will increase. These hormones are thought to cause vomiting during pregnancy (Manuaba, 2009). Most pregnant women experience nausea (emesis gravidarum) during pregnancy. This condition is very common in early pregnancy, especially in the first week to the third month of pregnancy. (Atiqoh, 2020).

The impact of nausea & vomiting if not handled properly it will cause signs of severe (intractable) and persistent nausea & vomiting that occurs in early pregnancy, causing dehydration, electrolyte disturbances or nutrient deficiency known as hyperemesis gravidarum. Nausea in pregnancy is a normal spectrum, while hyperemesis gravidarum is a more extreme condition. Unlike morning sickness, which is considered mild and physiological, hyperemesis can have adverse effects on both the pregnant woman and the fetus. Nausea and vomiting during pregnancy can be overcome by using nutritional therapy that is eating little but often, herbal treatment, namely by using lemon aromatherapy (Yuli Yatina, 2016).

Aromatherapy comes from the word "aroma" which means fragrant and fragrant, and "therapy" which can be interpreted as a way of treatment or healing. So that aromatherapy can be interpreted as "a way of treating the body and healing diseases using essential oils" (Jaelani, 2009). Most pregnant women still use pharmacological therapy. However, it is better if pregnant women are able to overcome the problem of nausea in early pregnancy by using complementary non-pharmacological and complementary therapies first, because they are cheap, simple, effective and without adverse side effects.

Aromatherapy is a branch of herbal science, the method that is often used is essential oils. Essential oils have pharmacological effects such as antibacterial, antiviral, and calming. Lemon essential oil (citrus lemon) is one of the most widely used herbal oils in pregnancy and is believed to be the safest remedy for nausea and vomiting or nausea in the 1st trimester of pregnancy. One or two drops of lemon essential oil can help. calms & relieves emesis / nausea and vomiting in pregnant women and the method used is also practical. The trick is to drip 2-3 drops of this lemon essential oil into a tissue then instruct the mother to inhale the lemon aroma slowly for 5-10 minutes.

From the results of the study (Vitrianingsih, 2019) resulted in a decrease in nausea and vomiting scores in pregnant women between before & after being given lemon aromatherapy. Before being given aromatherapy, the score of nausea and vomiting gradually decreased until the 7th day of therapy. The decrease in nausea and vomiting scores can also be seen from the maximum and minimum values between before and after giving aromatherapy. Based on the results of the paired t-test, p-value was $0.017 < 0.05$, so it was concluded that there was a difference in nausea and vomiting scores between before and after giving lemon aromatherapy. Meanwhile, from the results (Sari, 2017) the study found the frequency of nausea and vomiting before being given lemon aromatherapy inhalation obtained an average value of 24.67 and fr (Yunita Syaiful, 2019) the frequency of nausea and vomiting after being given lemon aromatherapy inhalation obtained an average of 17.87 There is an effect of giving inhaled aromatherapy lemon against morning sickness in pregnant women with P-value = 0.000. This study uses a case study with the inclusion criteria of pregnant women in the first trimester with a nausea score of 1-15 using the PUQE-24 questionnaire. Therefore, it is recommended that pregnant women who experience nausea and vomiting can apply lemon aromatherapy treatment to reduce nausea and vomiting so that they can reduce the use of pharmacological drugs that have side effects.

METHOD

Case studies are carried out by examining a problem through a case using pretest posttest design. The characteristic of this type of research according to (Hidayat, 2017) is that there is no comparison group (control), but at least the first measurement (pretest) has been carried out that wants to test the changes that occur after the experiment or program. The sampling criteria in this case study were pregnant women in the 1st trimester using the PUQE-24 degree score interpretation, a score of 1-15. Lemon aromatherapy used with essential oil base ingredients

RESULTS AND DISCUSSION

The assessment on patient 1 was carried out on April 29, 2021 at 08.00 WIB at the patient's home and data were obtained through interview techniques with patients, as well as direct observation. The general identity of Mrs. A, who is a 29-year-old mother, female gender, Muslim, Indonesian ethnicity, last education high school, housewife occupation, marital status married. Obstetric status of first pregnancy and never had an abortion (G1P0A0). TTV examination and physical examination showed the patient's consciousness was composmentis, blood pressure 110/90 mmHg, pulse 80x/minute, respiration 21x/minute, temperature 36.2oC. the patient said that her pregnancy was 8 weeks, the patient did not carry out the family planning program and had not planned the family planning program. The patient had never been hospitalized before. The patient has no history of hereditary diseases such as diabetes mellitus, hypertension, heart disease, etc. However, the patient's mother had a history of hypertension. The initial score for nausea and vomiting before being given Lemon Aromatherapy was 10 (moderate nausea and vomiting).

The chief complaint against Mrs. A said that during pregnancy she often felt nauseous and vomited, the client often felt tired and dizzy, the client complained of decreased appetite. The results of the study, Subjective Data: the patient said that during pregnancy he often felt nauseated and vomiting. Objective data: anemic conjunctiva, dry lip mucosa and at the time of assessment of nausea and vomiting using the PUQE-24 questionnaire the client's score was 10. On Ny. A based on the first nursing diagnosis, nausea related to pregnancy. The evaluation was carried out on the 6th day, on May 4, 2021 with subjective data: the patient said that nausea and vomiting had decreased after the action of giving Lemon Aromatherapy was carried out. Objective data: moist lip mucosa, it appears that the nausea and vomiting score has decreased to a score of 5 (mild nausea and vomiting). Assessment is the problem is partially resolved, planning is to continue the intervention: giving Lemon Aromatherapy.

The assessment on patient 2 was carried out on May 2, 2021 at 08.10 WIB at the patient's home and data were obtained through interview techniques with patients, as well as direct observation. The general identity of Mrs. C, who is a 25 year old mother, female gender, Muslim, Indonesian ethnicity, last education is high school, work as an employee, marital status married. Obstetric status of first pregnancy and never had an abortion (G1P0A0). TTV examination and physical examination showed that the patient's consciousness was composmentis, blood pressure 120/80 mmHg, pulse 78x/minute, respiration 22x/minute, temperature 35.8oC. The patient said that she was 4 weeks pregnant, the patient had not implemented a family planning program and had not planned a family planning program. The patient said that before getting pregnant he had been treated at the puskesmas because of typhoid. The patient said that no one in his family had a history of hereditary diseases such as hypertension, diabetes mellitus, heart disease, etc. The initial score for nausea and vomiting before being given Lemon Aromatherapy was 10 (moderate nausea and vomiting).

The chief complaint of Mrs. C said during pregnancy often nausea and vomiting, nausea is most often felt in the morning and when the client is too tired. Client's appetite is also reduced. The results of the assessment, Subjective Data: the client said that during pregnancy he often felt nauseated and vomited, nausea was most often felt in the morning and if the client felt tired. Objective data: dry lip mucosa, at the time of the assessment of nausea and vomiting using the PUQE-24 questionnaire the client's score was 10. In Ny. C based on the first nursing diagnosis, namely nausea related to pregnancy. The evaluation was carried out on the 6th day, May 17, 2021 with subjective data: the patient said that nausea and vomiting had decreased after the action of giving Lemon Aromatherapy was carried out. Objective data: the lip mucosa is moist, it appears that the nausea and vomiting score has decreased to a score of 4 (mild nausea and vomiting). Assessment is the problem is partially resolved, planning is to continue the intervention: giving Lemon Aromatherapy.

Based on subjective data and objective data on Mrs. A and Mrs. C, then the nursing problem can be enforced, namely Nausea related to pregnancy. Nausea is caused by increased levels of the hormone HCG. When the fertilized egg attaches to the uterine wall, the body will produce the hormone HCG (Human Chorionic Gonadotropin). This is thought to be the cause of nausea in pregnant women, and the nausea that appears is a sign that the body is producing the hormones needed for pregnancy.

The purpose of the nausea intervention is after nursing actions, namely management of nausea by giving Lemon Aromatherapy for 6 days, it is hoped that the problem of nausea can be resolved with the criteria and results of patients reporting nausea and vomiting are reduced until they disappear. The interventions carried out were: identification of the experience of nausea, identification of the impact of nausea on quality of life (eg appetite, activity, performance, sleep), identification of factors causing nausea, monitoring of nausea (eg frequency, duration, severity), monitoring of nutritional intake, controlling the environment the cause of nausea, recommend adequate rest and sleep, recommend non-pharmacological techniques to treat nausea (lemon aromatherapy). The intervention emphasizes the management of nausea by giving Lemon Aromatherapy for 6 days to treat the patient's nausea and vomiting.

Nursing actions performed on Mrs. A and Mrs. C for the first 6 days, an assessment of the patient's nausea and vomiting was carried out by giving aromatherapy for 6 days, namely by giving 2-3 drops of lemon essential oil that were already available into a tissue and instructing the respondent to inhale directly for 5-10 minutes when the respondent

felt nauseous. After the action, the researcher will review the patient's nausea and vomiting. To measure the patient's level of nausea and vomiting, the researcher used the PUQE-24 Questionnaire sheet with a score of <6 nausea and vomiting; mild nausea and vomiting, a score of 7-12: moderate nausea and vomiting and a score of 13-15: severe nausea and vomiting. The results of research conducted on Mrs. A and Mrs. C is as follows described in table 1.

Table 1. Nausea Score Before and After Giving the Intervention of Giving Lemon Aromatherapy to Ny. A and Mrs. C

Respondent	Before given Lemon Aromatherapy		After being given Lemon Aromatherapy	
	Ny. A	10	Moderate nausea and vomiting	5
Ny. C	10	Moderate nausea and vomiting	4	Mild nausea and vomiting

Based on table 1, it was found that the research that had been carried out for 6 days explained that giving Lemon Aromatherapy could reduce the patient's level of nausea and vomiting. Basically, from the results of the assessment and observation, the two patients had different levels of nausea and vomiting. On Mrs. A the initial level of nausea and vomiting was 10 (moderate nausea and vomiting), but after being given Lemon Aromatherapy for 6 days the level of nausea and vomiting became 5 (mild nausea and vomiting). For the second patient, Mrs. C with the initial level of nausea and vomiting was 10 (moderate nausea and vomiting) after being given Lemon Aromatherapy for 6 days with the same method and duration of administration as Mrs. A. A level nausea and vomiting decreased to 4 (mild nausea and vomiting) and in the process of giving it, there were no signs of an increase in the intensity of nausea and vomiting.

The purpose of giving Lemon Aromatherapy is to contain ingredients that can kill meningococcus bacteria, typhoid bacteria, have antifungal effects and are effective in neutralizing unpleasant odors, and produce anti-anxiety, anti-depressant, anti-stress effects, and to lift and focus the mind (Sari DY)., 2017). In addition, the benefits of lemon aromatherapy are as the safest drug used to treat nausea and vomiting or nausea in the 1st trimester of pregnancy.

The study of giving lemon aromatherapy was given to 2 respondents, namely Mrs. A and Mrs. C. In giving lemon aromatherapy to the 2 respondents, the action of giving aromatherapy was carried out for 6 days, namely by giving 2-3 drops of lemon essential oil that were already available into a tissue and instructing the respondent to inhale directly for 5-10 minutes when the respondent felt nauseous.

The difference in the decrease in nausea experienced by the two respondents was influenced by several factors, including the factor of gestational age, occupation or activity. Nausea accompanied by vomiting can be influenced by the factor of gestational age. Nausea and vomiting are caused by hormonal changes during pregnancy and usually occur during the day or night. Nausea and vomiting during pregnancy usually starts early in pregnancy and reaches its peak at the eighth or ninth week (Sari D. Y., 2017).

Nausea and vomiting can also be affected by the mother's occupation. This can be a psychological factor causing hyperemesis. Because strenuous physical work can increase mental stress or high anxiety so that gastric acid production increases, if it happens often stomach acid will damage and irritate the stomach, causing various symptoms and complaints that can interfere with daily activities such as nausea and vomiting. According to psychosomatic theory, nausea and vomiting in pregnancy is a state of psychological disturbance that is transformed in the form of physical symptoms. Unplanned and unwanted pregnancies as well as work and income pressures can cause conflict (Runiari, 2010)

In line with research conducted by (Sari, 2017) shows that nausea and vomiting are influenced by gestational age. The results obtained by Mrs. C is more significant than Mrs. A. In decreasing the score of the level of nausea and vomiting Mrs. A 8 weeks gestational age with a score of 10 (moderate nausea and vomiting) decreased to 5 (mild nausea and vomiting) after being given Lemon Aromatherapy for 6 days. On Mrs. C, 4 weeks of gestation with a score of 10 (moderate nausea and vomiting) decreased to 4 (mild nausea and vomiting) after being given Lemon Aromatherapy for 6 days. This is because morning sickness usually peaks in the eighth week of nausea and ends in the twelfth week (Djanah, 2015).

This indicates that giving Lemon Aromatherapy can be used for alternative management of nausea and vomiting. Lemon contains limonene which will inhibit the work of prostaglandins so that it can reduce pain and function to control cyclooxygenase I and II, prevent prostaglandin activity and reduce pain including nausea and vomiting (Siti Rofi'ah, 2019).

This is supported by research conducted by (Sari, 2017) regarding the effect of Inhaled Lemon Aromatherapy on Morning Sickness in pregnant women in the working area of the puskesmas with the results that there is an effect of Lemon Aromatherapy on changes in the frequency of emesis before and after being given Lemon Aromatherapy. (Putri,

2020) regarding the effectiveness of giving Lemon Aromatherapy to reduce the frequency of emesis gravidarum in 1st trimester pregnant women at BPM Indra Iswari, SST, SKM, MM Bengkulu City.

Comparison from previous research, namely the administration of Lemon Aromatherapy which was given 5 drops for 5 minutes for 12 hours, observations were made by (Siti Rofi'ah, 2019). While the application of Lemon Aromatherapy for 5-10 minutes for 6 days is in line with research conducted by (Sari, 2017).

Research conducted by (Sari, 2017) used a pre-experimental research design with a one group pretest – posttest design approach with purposive sampling technique, the number of samples was 20 people. While the research conducted by (Siti Rofi'ah, 2019) used a quasi-experimental design research design, with the Pretest Posttest approach with Control Group Design with a sampling technique, the number of samples was 55 people. Data was collected through measuring the nausea and vomiting score using the PUQE-24 questionnaire, then the researchers took action to provide aromatherapy for 6 days, namely by giving 2-3 drops of lemon essential oil that were already available into a tissue and instructing the respondent to inhale directly for 5-10 minutes when the respondent felt nauseous. Then observations were made by being given an observation sheet.

Meanwhile, the current research uses a one-group pretest posttest design that involves 2 respondents. Each group before and after giving Lemon Aromatherapy will be assessed for nausea and vomiting scores using the PUQE-24 (Pregnancy Unique Quantification of Emesis-24) questionnaire in line with previous studies.

CONCLUSIONS AND SUGGESTIONS

The conclusion from the research that has been carried out on the two respondents that the administration of Lemon Aromatherapy is appropriate to be used as an alternative to overcome nausea and vomiting where the score for the level of nausea and vomiting is Ny. A was initially 10 (moderate nausea and vomiting) and after being given Lemon Aromatherapy for 6 days it became 5 (mild nausea and vomiting). On Mrs. C with a score of nausea and vomiting, which was initially 10 (moderate nausea and vomiting) after being given Lemon Aromatherapy for 6 days to 4 (mild nausea and vomiting).

The limitation of the study is that the time of giving Aromatherapy is not the same, Mrs. A was given aromatherapy in the morning and Mrs. C is given aromatherapy not every morning. This has an effect on decreasing the score of nausea and vomiting.

Researchers did not provide observation sheets for respondents, so researchers could not see a significant decrease in nausea and vomiting scores. However, researchers have advised patients to inhale lemon aromatherapy for 5-10 minutes when nausea and vomiting appear. For further research, researchers can prepare observation sheets given to respondents so that respondents can fill out a checklist when inhaling aromatherapy.

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