

# The Influence of Giving Lemon Aromatherapy on Pregnant Women with Emesis gravidarum

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## ABSTRACT

Emesis Gravidarum experienced by about 70-80% of pregnant women and is a phenomenon that often occurs at 5-12 weeks of gestation. Lemon essential oil is one of the herbal oils that is considered a safe remedy for pregnancy. The purpose of this study was to find out the description of giving Lemon therapy to pregnant women with emesis gravidarum in pregnant women at the Maubesi Health Center in 2022. This research method is a quantitative type of quasi-experiment with a One Group Pretest-Posttest Design approach without control. The research location will be held at the Maubesi Health Center on March 24-May 5, 2022. The population in this study were all pregnant women who had a pregnancy checkup on March 24-May 5, 2022 at the Maubesi Health Center. The number of samples was 10 pregnant women with emesis gravidarum which were taken by purposive sampling based on inclusion and exclusion criteria. Research results From the results of research conducted by obtaining the frequency of nausea and vomiting before being given inhalation of Lemon aromatherapy obtained an average value of 7.4 and the frequency of nausea and vomiting before being given inhalation of Lemon aromatherapy obtained an average of 0.1 There is an effect of giving inhalation of Lemon aromatherapy to morning sickness in pregnant women with P-value = 0.000. The conclusion is that there is a statistically significant difference between before and before the intervention of giving inhalation of Lemon aromatherapy. Therefore, it is recommended that pregnant women who experience vomiting can apply Lemon aromatherapy treatment to reduce nausea and vomiting.

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## INTRODUCTION

The high rate of malnutrition in the mother pregnant enough give contribution to high birth weight Low (LBW) in Indonesia (Directorate General Build nutrition and KIA Ministry of Health RI, 2018). One factor that could influence status nutrition on mother pregnant is complaint nauseous and vomit ( *emesis gravidarum* ) especially in early pregnancy. Emesis Gravidarum deep pregnancy caused enhancement hormone estrogen and *Human Chorionic Gonadotropin* (HCG) which otherwise immediately treated will continue in *hyperemesis gravidarum* (tyrant, 2019).

World Health Organization (2018) say amount incident *Emesis Gravidarum* reach 12.5% from amount pregnancy which occur in world. Aril Research (2012) said that data on pregnant women who experience emesis gravidarum worldwide with an incident rate that is varies, namely 1-3% of all pregnancies in Indonesia (0.3%), Sweden (0.5%), Californian (0.8%), Canada (0.8%), China (0.9%), Norway (2.2%), Pakistan (1.9%) and America Union (0.5%- 2%) ( Aril, 2012 ).

The incidence of *Emesis Gravidarum* in Indonesia is obtained from 2,203 Completely observable pregnancies were 543 pregnant women affected by emesis gravidarum. In Indonesia, around 10% of pregnant women are affected by emesis gravidarum (RI Ministry of Health, 2019). *Emesis Gravidarum* can impact are you serious for mother and fetus, most impact which harmful fetus consequence vomit which critical that is birth premature and Heavy Body Born Low (LBW) (Nurulicha & Aisha, 2019).

Zuraida (2018) said that the impact of *Emesis Gravidarum* if it is not treated immediately it causes more severe (intractable) symptoms of nausea and vomiting and if it occurs continuously during early pregnancy (1st trimester) it can cause dehydration or lack of electrolyte fluids, nutrient deficiencies or malnutrition which is called *Hyperemesis Gravidarum*. Masruroh & Retnosari (2016) said that the incidence of *hyperemesis gravidarum* in Indonesia ranges from 1-3% of all pregnancies.

Zuraida (2018) said one of the causes of maternal death is pregnancy complications which include *Hyperemesis Gravidarum*, this incident occurs in 2 per 1000 live births, 99% Maternal Mortality Rate (AKI) occurs in developing countries, in 2013 it reached 230 per 100,000 births live compared to 16 per 100,000 live births in developed countries . Mothers die from complications during pregnancy and after pregnancy and more than 60,000 maternal deaths in 115 countries show that pregnant women already have a history of poor health which causes 28% of deaths.

*Emesis Gravidarum* that they have done is through drugs pharmacology like Pyridoxine (vitamin B6), Antihistamines, Anticholinergics, Ondansetron, Phenothiazine, Butyrophenones, Serotonin antagonists, but use drugs Pharmacology sometimes give effect side such as headache, diarrhea, dizziness, urinary retention, confusion, dry mouth, constipation and drowsiness. Therefore, to avoid the effect pharmacology the mother pregnant could use method experience that is with use aroma therapy (Widyastuti *et al.* , 2019).

Regarding the form of compassion for others who are sick, the researcher also wants to add a characteristic of the AKBID Santa Elisabeth Kefamenanu, namely the Healing Power of Christ's Love which is shown in the quotation from the holy book Mark 6:13 which says: " *and they cast out many demons, and anointed many sick people with oil and cured them*".

Quoting the verses of the holy book, the author wants to convey that as someone who suffers from physical and psychological pain, he definitely wants a cure. Various ways of medical action are carried out in the healing process by giving medicines to those who are sick but with medicines can give side effects therefore in addition to prescription drugs there are various herbal medicines that are efficacious in the healing process such as giving Lemon aromatherapy which is very useful, gives peace, comfort because of the fragrance of the oil.

Aromatherapy is used to reduce *Emesis Gravidarum* during pregnancy one of them is Lemon aromatherapy. Aroma therapy Lemons is oil essential which generated from extract skin orange (Citrus lemons) which often used in aroma therapy. On Lemons contained Limonene (main component in orange peel oil) which will hinder work prostaglandins so that can reduce pain and function to control cyclooxygenase I and II, prevent activity prostaglandins and reduce \_ flavor sick including *Emesis Gravidarum* (Cheraghi and Valadi, 2018).

Research on Lemon Aromatherapy Inhalation reduces *Emesis Gravidarum*di BPS Lia Maria Sukarame Bandar Lampung in 2019 for several pregnant women which experience *Emesis Gravidarum* was obtained results after conducted gift Lemon inhalation, there is a significant decrease in *Emesis Gravidarum*, so it can it was concluded that there was an effect of giving Lemon inhalation to reduce *Emesis Gravidarum* on mother pregnant trimester 1 (Maternity *et al.*, 2019).

Preliminary studies that were carried out from January to April 2022 at the Maubesi Health Center found data on 53 pregnant women, 23 people who did K1 and 30 people who did K4, with pathological cases of *emesis gravidarum* 12 pregnant women, 16 women pregnant with CED, 6 pregnant women with Anemia, and 2 pregnant women with Hypertension. Based on the background above, the writer is interested in To do study about " The Effect of Lemon Therapy on Mothers Pregnant with *Emesis Gravidarum* "

Based on the background of the problem above that *Emesis Gravidarum* if no overcome will resulted body mother very weak, advance pale and the frequency of urination has decreased dramatically so that the body fluids are increasing reduce and blood Becomes thick ( *hemoconcentration / dehydration i* ). circumstances this could slow down circulation blood so that consumption oxygen and food to network also follow reduce so that raises damage network which could endanger the health of the mother and the health of the unborn child. Wrong one effort to overcome this is by giving Lemon aromatherapy , so it can be concluded that the formulation of the problem in this study is "How does the effect of giving Lemon therapy to *pregnant* women with *Emesis Gravidarum*

## RESEARCH METHOD

This type of research is *Quasi Experimental research* with the *One Group Pretest-Postest Design approach* without control. The location of the research was carried out at the Maubesi Health Center on March 24 - May 5, 2022. Population in research this is whole mother pregnant which To do inspection pregnancy on March 24th - 05 may year 2022 at the Maubesi Health Center. Sample in study this is whole mother pregnant 10 people who experienced *emesis gravidarum* with the sampling technique using *purposive sampling* based on inclusion and exclusion criteria : (1) Inclusion criteria: pregnant women who experience *emesis gravidarum*. (2) Exclusion criteria: pregnant women who do not experience *Emesis Gravidarum*

## RESULTS AND DISCUSSIONS

### Characteristics of Respondents by Age

Nauseous and vomit normal occur on age under 20 year due to insufficient physical, mental and functional maturity social status of the expectant mother so that it can cause physical doubts, love love and care and care for the child to be born. Nauseous vomit which occur on age 35 year caused by factor psychological, where mother not yet ready pregnant or even no want her pregnancy again so that will feel such stressed and raises stress on mother (Rudiyanti & Rosmadewi, 2019).

Results research shows that the number of pregnant women who experience a lot *emesis gravidarum* that is mother pregnant aged 20-35 year amount 10 respondents. This means that almost all respondents are at age reproduction healthy and safe (no at risk). On age reproduction healthy most women can survive pregnancy, childbirth, and childbirth in condition which optimal so that mother and the baby healthy, (Rose and Neil, 2009 in Rosalina, 2019).

Results study this supported by Primadiati, (2010) which can be concluded that subtraction *Emesis Gravidarum* on mother pregnant trimester 1 is influenced by mothers with age not at risk tall. in conclusion, no all incident *emesis gravidarum* occur on aged <20 and >35 years who are at risk but at a safe age, namely 20-35 year can also experience *emesis gravidarum*.

### Characteristics of Respondents Based on Parity

Most of the primigravida pregnancies are over often experience *emesis gravidarum* because on Primigravida affected by pregnancy hormone levels. When a woman is pregnant with a child first, so rate hormonal will experience enhancement more compared on woman multigravida. Multigravida pregnant women are able to adapt to hormone pregnancy the because already have experience to pregnancy and birth. So *Emesis Gravidarum* primigravida usually more high in comparison multigravida (Suryaningrum KC, 2017 ).

Results of this study show that the average parity of mothers who experience emesis gravidarum is 1.7 with a variation of 1.25. the least number of parities is 1 and the most parity is 4. The results of the analysis can be concluded that the 95% confidence limit means that the average parity of mothers experiencing Emesis Gravidarum ranges from 0.80 to 2.59.

This research is also in line with Pratiwi's research (2018), value average of Emesis Gravidarum before the intervention, it was 8.5. Meanwhile, after the intervention there was a decrease in as big 1.4. Likewise study this in accordance with results study Amiliano (2018), before conducted intervention to group experiments obtained an average value of 13.18 while after being given intervention so obtained an average value of 7.65. In conclusion it happened *emesis gravidarum* mostly occurred in primigravida pregnancies as many as 7 respondents while in multigravida as many as 3 respondents.

Incidence of *emesis gravidarum* in Primigravida affected by pregnancy hormone levels. When a woman is pregnant with a child first, so rate hormonal will experience enhancement more compared on woman multigravida. *Emesis gravidarum* occurs in Multigravidas because mothers with Chronic Energy Deficiency, and there are food restrictions/abstinences for pregnant women such as pregnant women with certain clans abstaining from eating fish and moringa.

#### **Characteristics of Respondents Based on Gestational Age**

Usually, *morning sickness* will begin to appear at the age of 6 weeks or the second month of pregnancy. But this condition is certainly different for each pregnant woman. In most women, *morning sickness* will go away after 12 weeks of pregnancy or after the end of the first trimester. In some women, *morning sickness* can occur until the age of 20 weeks of pregnancy, some even experience it throughout the pregnancy.

Results of this study show that the average gestational age of women who experience emesis gravidarum is 17.10 with a variation of 9.90, the easiest gestational age is 7 weeks and the oldest gestational age is 35 weeks. The results of the analysis can be concluded that the confidence limit is 95%, which means that the average mother who experiences emesis gravidarum with a gestational age ranging from 10.01 weeks to 24-18 weeks. In conclusion it happened *emesis gravidarum* Most of them occurred at 6-7 weeks of gestation (early trimester) and there were 5 respondents. However, in some women emesis gravidarum occurred at 27 weeks of gestation (second trimester) there were 4 respondents and 32 weeks (third trimester) there was 1 respondent.

Giving lemon aromatherapy can provide a comfortable effect and lowered the rate worry and stress and these conditions can reduce the intensity of emesis gravidarum where Psychological problems (stress) are aggravating conditions nausea and vomiting in pregnant women. Mechanisms for reducing anxiety and stress with lemon aromatherapy inhalation is through olfactory compounds active A tsiri and L inalool which contained in A romatherapy Lemon \_ stimulate the parts of the brain that are responsible for stimulating the formation effect which generated by aroma therapy.

Based on research conducted by researchers, the *P value was obtained (0.0470)* before being given Lemon aromatherapy. After the intervention of giving Lemon aromatherapy on the first day, the *P value was obtained (0.0470)* meaning that there had been no change in the first day of intervention, giving Lemon aromatherapy on the second day, the *P value was obtained (0.017)* meaning that there had been a change in the *P value* on the second day. , on the third day giving Lemon aromatherapy obtained a *P value of (0.000)*, and on the fourth day giving Lemon aromatherapy obtained a *P value of (0.000)*.

Based on the results of the study, it was shown that there was a significant difference between the average frequency of emesis gravidarum before and after being given Lemon aromatherapy inhalation to pregnant women who experienced Emesis Gravidarum on the third and fourth days, with a *P value = 0.0000*. That giving aromatherapy can reduce the frequency of Emesis Gravidarum post-test difference in mean value of 2 mean difference of 7.3 out of 7.4 (before giving aromatherapy it decreases by 0.1 (after giving aromatherapy). The results of the T test obtained a *P value of 0.000*

meaning that statistically there is a significant difference between giving aromatherapy before and after giving lemon aromatherapy.

The results of this study are in line with Rahayu RD's research (2018) obtained score  $P\text{-value}$  (0.000)  $< \alpha$  (0.05) that is difference which significant after administration of Lemon aromatherapy. And the same is done by Punca (2015), from the results of data analysis obtained a  $P\text{ value}$  of 0.000 which it means  $< \alpha$  (0.05) which means that there is influence gift aroma therapy Lemon against decline Emesis Gravidarum on mother pregnant. The same research was also conducted by Ayu Wandira (2019) showing occur decline nauseous and vomit on mother pregnant trimester first ( $p < 0.05$ ).

The results of Afriyanti's research, (2020) showed that there was a significant difference between the average frequency of emesis gravidarum before and after being given Lemon aromatherapy inhalation to pregnant women who experienced Emesis Gravidarum with a  $P\text{ value} = 0.0000$ . After giving Lemon aromatherapy inhalation, the respondents stated that they felt calmer and more comfortable and the sensation of nausea felt by the mother was no longer the same as before giving Lemon aromatherapy.

According to an assumption from research that has been conducted by researchers that if emesis gravidarum is not treated immediately it will have an impact on the mother and fetus. In the mother there will be excessive Emesis Gravidarum (*Hyperemesis Gravidarum*), Chronic Energy Deficiency, Anemia, and Malnutrition. Whereas in the fetus there will be Low Birth Weight (LBW), and Premature. Treatment that has been done before is by giving B6 drug therapy, but drug administration can have side effects such as headaches, diarrhea, dizziness, urinary retention, sedation, confusion, dry mouth, constipation and drowsiness. Therefore, to avoid excessive drug side effects, complementary therapy is given, namely by giving Lemon aromatherapy to treat nausea and vomiting.

After giving Lemon aromatherapy, there was a significant difference between before and after giving Lemon aromatherapy to pregnant women with *emesis gravidarum*. Based on the research conducted, the researchers found that the incidence of emesis gravidarum that occurred in pregnant women was that there were several respondents who experienced chronic energy deficiency and anemia caused by cultural taboos in certain clans such as mothers with the Ceunfin clan who were prohibited from consuming fish and moringa. This lack of food intake can cause KEK in the mother.

## CONCLUSION

Based on the results of research that has been carried out in the Work Area Maubesi Health Center as well outlined on discussion which exposed to the previous chapter, the researcher can provide conclusions as following: Characteristics respondent, almost whole age mother aged 20-35 year which experienced *emesis gravidarum*, most parity with pregnancy primigravida who experienced *emesis gravidarum* as many as 7 respondents while pregnant women with multigravida parity as many as 3 respondents with gestational age in the first trimester as many as 5 respondents, in the second trimester as many as 4 respondents and in the third trimester there is 1 respondent in Region Work Maubesi Community Health Center in 2022. There is a decrease in the average score of the *Emesis Gravidarum level* before and after given aroma therapy Lemons on mother pregnant in Region Work Maubesi Community Health Center in 2022. There is an effect of giving Lemon aromatherapy in reducing *Emesis Gravidarum* on mother pregnant at Region Work Public health center Maubes in 2022. That giving aromatherapy can reduce the frequency of Emesis Gravidarum post test difference in mean value of 2 mean difference of 7.3 out of 7.4 (before giving aromatherapy it decreased by 0.1 (after giving aromatherapy). T test results obtained a p-value of 0.000 meaning statistically there is a difference g significantly between before and after administration of Lemon aromatherapy.

Can be recommended for mothers pregnant in particular mother pregnant which experience *emesis gravidarum* is expected to use simple inhalation using a tissue or cotton and electric inhalation

can be used by pregnant women and can be conducted independently so that the mother could resolve Emesis Gravidarum during pregnancy.

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