

Optimization of Pregnant Women's Knowledge about Nausea, Vomiting and the Use of Ginger Honey Drink to Reduce Nausea, Vomiting

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ABSTRACT

Nausea and vomiting that occurs in the first trimester of pregnancy is caused by increased levels of the hormones Estrogen and Human Chorionic Gonadotropin (HCG) in the serum from the placenta. Nausea, vomiting often occurs when you wake up in the morning, which is also called morning sickness. The aim of this community service is to optimize pregnant women's knowledge about the benefits of ginger-honey drinks to reduce nausea and vomiting in pregnant women in the first trimester. This activity is carried out by providing education about nausea and vomiting in the first trimester of pregnancy by giving a pre-test questionnaire about nausea and vomiting before being given counseling and post test questionnaire about nausea and vomiting after being given counseling. Then they carried out a demonstration on making Honey Ginger leaf drink and immediately distributed it for pregnant women to drink. This counseling was carried out at the Mawar posyandu in the working area of the Karang Indah Community Health Center, Merauke district, which was attended by 23 pregnant women. The results of the counseling before the counseling was given were 13 pregnant women (57%) with good knowledge and after the activity there was an increase in knowledge to 22 pregnant women (96%) with good knowledge. It is hoped that there will be more emphasis on treating nausea and vomiting by utilizing the natural wealth around us, namely ginger and honey.

Keywords: Ginger, nausea, pregnant women, vomiting

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INTRODUCTION

Emesis gravidarum is nausea and vomiting that appears in the first four weeks of pregnancy and slowly disappears at twelve weeks of pregnancy (Runiari Nengah, 2020). Nausea is defined as the tendency to vomit something, or a sensation that appears in the throat or epigastric area without being followed by vomiting, while vomiting is defined as the expulsion of stomach contents through the mouth, and is generally accompanied by strong urges that occur in pregnancy. (Setiawan, 2022). Nausea and vomiting that occurs during pregnancy is caused by increased levels of the hormones estrogen and progesterone produced

by Human Chorionic Gonadotropin (HCG) in the serum from the placenta. The frequency of morning sickness is not only in the morning but can be in the afternoon or even at night. (Aritonang E, 2019). Apart from that, half of pregnant women will experience nausea and vomiting due to smelling the aroma of food. Nausea and vomiting occur in 60-80% of primi gravida and 40-60% of multi gravida (Frequently Asked Questions (FAQ), 2020) Each pregnant woman's response to hormonal changes will be different, so not everyone experiences nausea and vomiting during pregnancy. A pregnant mother will really need a lot of nutrition for the development of the fetus, childbirth and breastfeeding. Women's hormonal and physical changes that occur during pregnancy will affect their food consumption patterns. Pregnant women's nutrition is also very important for the health of the fetus in the womb. Pregnant women who lack nutrition can result in abnormal fetal development, pregnant women's nutrition affects fetal growth. (Retnaningtyas, 2021).

The prevalence of emesis gravidarum in Indonesia also varies in each region. Wiraharja et al showed that the incidence of emesis gravidarum in first trimester pregnant women in Boyolali was 42.86%. (Wiraharja Regina Setya, 2011) Furthermore, Saswita reported that the majority (60%) of pregnant women in Sidoarjo experienced emesis gravidarum. (Saswita, 2013). Finta also reported that 27 people (71.1%) of pregnant women in Kediri experienced emesis gravidarum. (Finta Isti, 2018). Under normal circumstances, emesis gravidarum does not cause many negative effects, but if emesis gravidarum continues to become hyperemesis gravidarum, it carries the risk of problems with pregnancy, for example dehydration, the patient can experience shock, inhibit fetal growth and development, electrolyte balance disorders, carbohydrate reserves in the mother's body will run out, tears in the lining of the esophagus and stomach tissue can occur if vomiting is too frequent and there is a higher risk of giving birth to a baby with a low birth weight, prematurely, and an Apgar score of less than seven (Manuaba, 2017).

Based on an analysis of the situation at the Anggrak posyandu in the Karang Indah community health center area, there are still many pregnant women who experience nausea and vomiting. (Puskesmas Karang Indah, 2022). Nausea and vomiting in pregnancy are usually mild and are conditions that can be controlled according to the condition of the pregnant woman. This condition sometimes stops in the first trimester, (Runiari Nengah, 2020) Management of emesis gravidarum is divided into pharmacological and non-pharmacological. Pharmacological treatment consists of administering vitamins (vitamin B complex, N6 mediamer as a vitamin and anti-emetic) and light sedative treatment. Non-pharmacological treatment to treat emesis gravidarum, for example by giving hot tea and giving ginger. (Matthews, 2020).

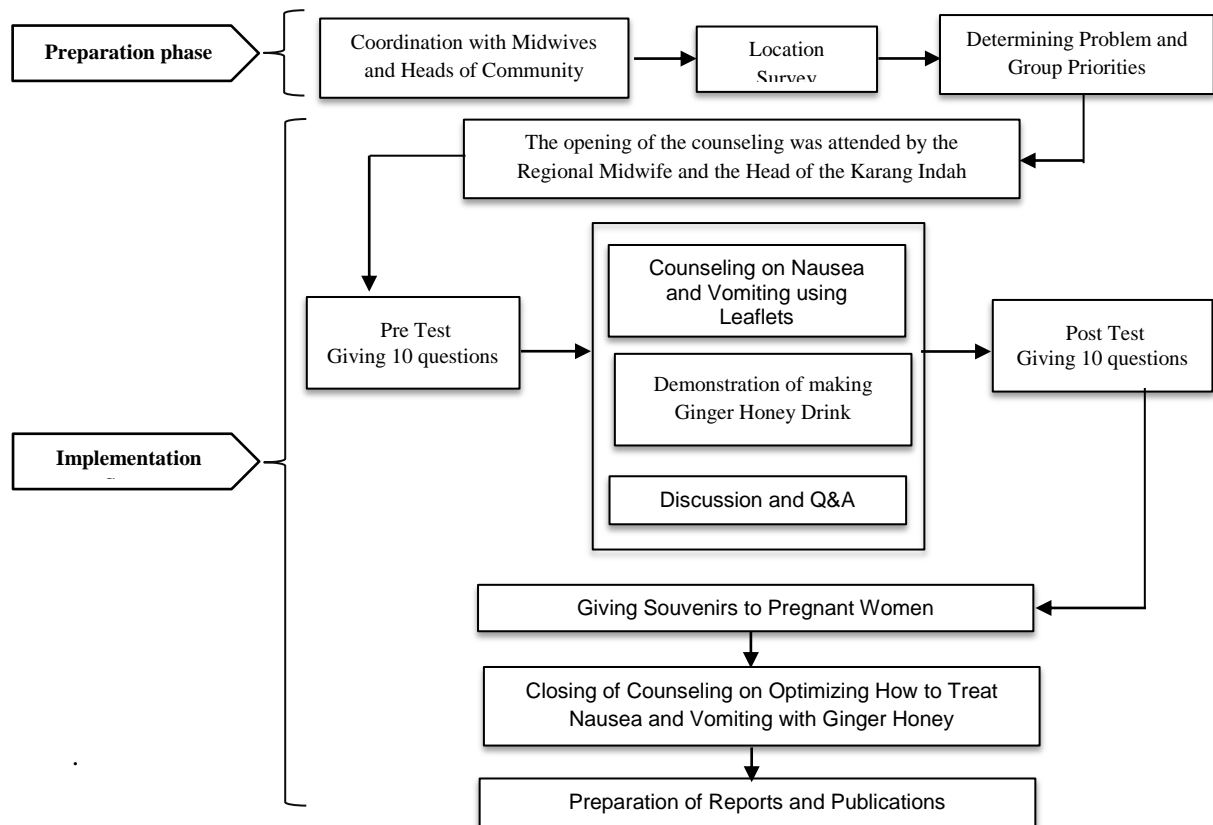
Ginger is a medicinal plant and spice that has long been known by Indonesian people. Ginger is almost spread throughout the wet tropical regions of Asia. The main centers for ginger plants in Indonesia are North Sumatra, Bengkulu, West Java, Central Java and East Java. (Ramadhan, 2018) In South Papua, especially Merauke, ginger is also very easy to get. Ginger is a plant with a million benefits that have been known for a long time. Ginger is an important spice. The rhizome has many benefits, including as a cooking spice, drink, and candy and is also used in traditional medicines.(Setiawan, 2022). The first advantage of ginger is that it contains essential oils which have a refreshing effect and blocks the gag reflex, while gingerol can stimulate the blood and make the nerves work well. As a result, tension can be melted, the head will feel fresh, and nausea and vomiting will be suppressed. The fragrant aroma of ginger is produced by essential oils, while the oleoresin causes a spicy taste that warms the body and produces sweat (*Ginger Its Value in human Health Side*, 2018). Several research results show that ginger is a therapeutic ingredient to relieve and reduce nausea and vomiting. Apart from that, ginger is also effective in reducing emesis gravidarum

in pregnant women in the first trimester of pregnancy and reducing nausea and vomiting in multigravid mothers. (Vutyanch, 2012) Ginger can relax and weaken the muscles of the digestive tract so that nausea and vomiting can be reduced. (Vutyanch, 2012).

The aim of implementing this service is to increase public knowledge, especially pregnant women, about the benefits of ginger to reduce nausea and vomiting during pregnancy. The role of nutrition education is very important for the community, especially pregnant women. Education is a form of health education activity as a planned effort to change the behavior of individuals, families, groups and communities in the health sector.

METHOD

This community service activity was attended by 23 pregnant women which was carried out on Thursday 10 to 15 July 2023 at Posyandu Mawar in the Karang Indah Health Center Working Area, Merauke Regency. The method used in this community service activity is to provide counseling to pregnant women using leaflets and demonstrations on making ginger and honey drinks to reduce nausea and vomiting in pregnant women. Providing pre-test questions before counseling and post-test questions after counseling. The planning process and methods used in this community service activity can be seen through the following diagram:

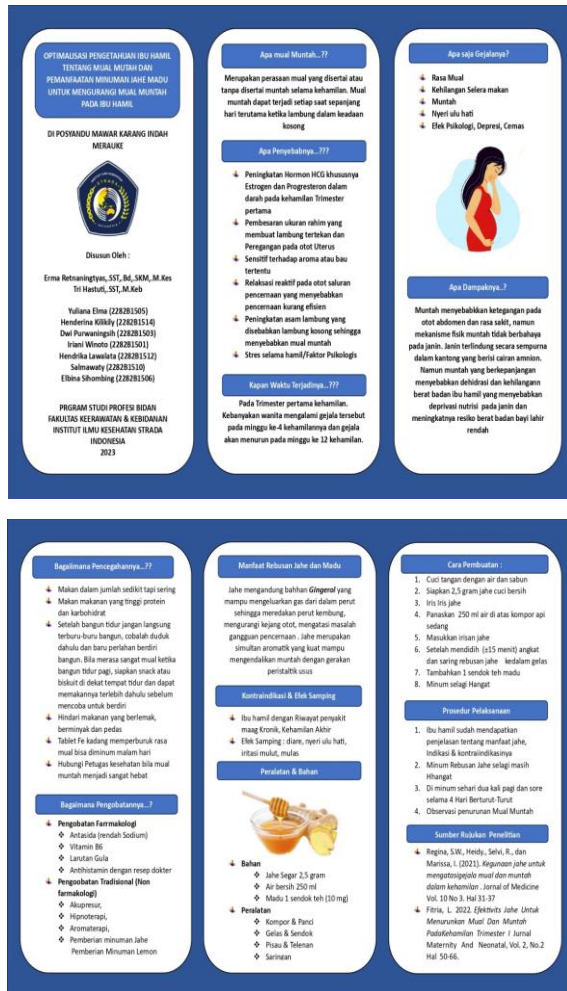


Picture 1. Stages of Community Service Activities

RESULT

The community service program in the form of health education regarding "Use of Ginger Honey Drink to Reduce Nausea and Vomiting in Pregnant Women", can increase pregnant women's knowledge about: the meaning of nausea and vomiting, causes of nausea and vomiting, when nausea and vomiting occur, symptoms and levels of nausea and vomiting,

impact of nausea and vomiting, non-pharmacological prevention/treatment of nausea and vomiting using ginger and honey, preparation of equipment and ingredients for ginger honey drinks and demonstration of how to make ginger honey drinks. The following is a leaflet and documentation of community service activities.



Picture 2. Leaflet Counseling



Picture 3. Service Documentation

This ginger honey drink is consumed twice a day in the morning and evening for 7 days. Through this activity, pregnant women can take advantage of the surrounding natural resources in an effort to reduce the incidence of anemia non-pharmacologically, especially at Posyandu Rose in the working area of the Karang Indah Community Health Center. This is evident from the recap of the questionnaire results before being given counseling as many as 13 pregnant women (57%) with Good knowledge and after being given counseling there was an increase in Good knowledge as many as 22 pregnant women (96%). This shows that participants are very enthusiastic about increasing their knowledge about the importance of education in dealing with pregnancy nausea and vomiting by utilizing the surrounding natural riches, namely ginger and honey drinks.

Table 1. Table of Knowledge of Pregnant Women before being given counseling

No	Knowledge	Total	Percentage
1	Good (Score 80 to 100)	13	57 %
2	Medium (Score 50 to 79)	6	26 %
3	Less (Value < 50)	4	17 %
	Amount	23	100 %

Table 2. Tabel Knowledge of Pregnant Women after being given counseling

No	Knowledge	Total	Percentage
1	Good (Score 80 to 100)	23	96 %
2	Medium (Score 50 to 79)	1	4 %
3	Less (Value < 50)	0	0 %
	Amount	23	100 %

DISCUSSION

During the discussion session, pregnant women were very enthusiastic about the delivery of the material, namely there were 3 pregnant women who asked questions. **The first question** was asked by Mrs. B, "Is it normal for pregnant women if they don't experience nausea and vomiting during pregnancy?" and answered by student Yuliana Elma, "Pregnant women who do not experience nausea and vomiting do not need to worry, because every woman has different conditions during pregnancy. Some experience nausea and vomiting in early pregnancy, some don't, but their womb is still fine. If a pregnant woman does not experience nausea, this is likely because the pregnant woman's body can adapt quickly to the increase in pregnancy hormones. **The second question** was asked by Mrs. S, "How long do we consume ginger honey drink when we have nausea and vomiting? The question was answered by student Dwi Purwaningsih "It is best to consume boiled honey ginger while it is still warm and drink it twice a day in the morning and evening for 7 consecutive days. **The third question** was asked by Mrs. R "Is there any food other than boiled ginger and honey to prevent nausea and vomiting during pregnancy?" Questions answered by Lecturer Erma Retnaningtyas. There are dates, high carbohydrate foods such as biscuits, high protein foods such as tofu, tempeh, soup and cold foods such as ice cream.

Even though pregnant women experienced a fairly high increase in knowledge after being given counseling about treating nausea and vomiting by consuming ginger honey, the post test results were still obtained by pregnant women whose knowledge was still sufficient, namely 3 pregnant women, 20%. Pregnant women still don't know about the ingredients in ginger that can reduce nausea and vomiting. Therefore, for further outreach activities, more emphasis will be placed on the importance of non-pharmacological treatment of nausea and vomiting other than ginger honey.

Ginger can prevent nausea and vomiting because ginger can act as a barrier to serotonin, a chemical compound that can cause the stomach to contract, resulting in nausea. The results of the study showed that ginger was effective in reducing nausea and vomiting during pregnancy. This was proven by the results of the hypothesis test, there was a decrease in the average reduction in nausea and vomiting before the intervention was given by 3.87 and after the intervention was given 2.78, p-value 0.014 ($\alpha = 0, 05$)(Saswita, 2020). Apart from that, other research shows that nausea in early pregnancy can be reduced by using complementary therapies, including herbal or traditional plants that can be used and are easy to get, such as

ginger, peppermint leaves, lemon, etc. (Puspito, 2022). The results of this study are in accordance with other studies which state that ginger works effectively to treat symptoms of nausea and vomiting that arise during pregnancy and even hyperemesis gravidarum, because ginger has the effect of relaxing and weakening the muscles in the digestive tract thereby reducing nausea and vomiting in pregnant women. (Vutymanich, 2012). The results of this study are also in line with research which shows that giving ginger drink therapy shows a reduction in morning sickness in pregnant women in the first trimester, after being given ginger drink therapy. (Ardani Ayu, 2013).

Another study that compared boiled ginger with mint leaves, the results showed that in the ginger group the difference was 9.87 while for mint leaves it was 6.66, so it can be concluded that giving boiled ginger is more effective than mint leaves. (Parwitasari, 2018). The results of another study compared the effectiveness of a combination of ginger extract and pyridoxine with pyridoxine alone in reducing nausea and vomiting in pregnant women. The results of the analysis from this research are that consumption of ginger extract of 700 mg per day is good enough to reduce complaints of nausea and vomiting in pregnant women and with a combination of pyridoxine, ginger extract levels can be reduced thereby reducing the risk of pregnancy. (Rimontha, 2020). Ginger extract has indeed been proven to be effective in reducing complaints of nausea and vomiting, but its use in pregnant women is still controversial. Several researchers recommend a safe dose of ginger extract for pregnant women to consume below 1000 mg/day, the same as the dose we get from daily food. Several researchers also found that ginger extract was more effective when combined with pyridoxine. Ginger contains the essential oils Zingiberena (zingirona), zingiberol, bisabilena, curcumin, gingerol, flandrena, vitamin A and bitter resin which can block serotonin, a neurotransmitter that is synthesized in serotonergic neurons in the central nervous system and lanterochromaffin cells in the respiratory tract. digestion so it is believed to give a feeling of comfort in the stomach so it is believed to give a feeling of comfort in the stomach so it can overcome nausea and vomiting (Rahmadan Ahmad, 2014).

By increasing knowledge about the benefits of ginger honey to reduce nausea and vomiting, it is hoped that the prevalence of hyperemesis in pregnant women at Posyandu Mawar in the Karang Indah Community Health Center working area can be eliminated and the incidence of hyperemesis will decrease. This is in line with research conducted by Prianti that there is a significant relationship between knowledge and management of nausea and vomiting in pregnant women. (Prianti et al., 2023) Pregnant women who have less knowledge about treating the onset of vomiting will have negative behavior in treating Nausea and Vomiting. (Lestari, 2018). To reduce the incidence of nausea and vomiting, education and education must also be given to husbands apart from pregnant women. Husbands play an important role in decision making within the family in implementing the fulfillment of pregnancy nutrition experienced by pregnant women. (Rahmadan Ahmad, 2014).

CONCLUSION

Counseling for 23 pregnant women was carried out at Posyandu Mawar in the Karang Indah Community Health Center working area. Before the counseling was given, there were 13 pregnant women (57%) with good knowledge and after the activity there was an increase to 22 pregnant women (96%) with good knowledge. Educational activities regarding pregnancy nausea and vomiting and the use of ginger-honey drinks have been proven to increase knowledge among pregnant women about non-pharmacological treatment of pregnancy nausea and vomiting. With increased knowledge, it is hoped that Hanil's mother will be able to apply ginger honey drink to reduce nausea and vomiting. The next outreach activity places

greater emphasis on non-pharmacological prevention of pregnancy anemia by utilizing the natural resources around us.

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