

## The Effectiveness of Giving Ginger Hot Drinks to Reduce Nausea and Vomiting Complaints in Pregnant Women: Literature Review

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### ABSTRACT

Along with nausea and vomiting, pregnant women enjoy mental, physical, and hormonal changes that lead to many processes, can lead to tissue damage and thus may impair maternal health and fetal development. Initial treatment of pregnancy vomiting may include supplements such as emotional counseling, dietary changes, and administration of ginger wedang. Treatment should be included. The motivation for this literature review is to discover the efficacy of giving ginger wedang to reduce forensic cases of nausea and vomiting in pregnant women. We utilized a literature review that used the keywords 'Ginger (AND) Nausea Vomiting (AND) Pregnancy' and searched for journal articles from 2018 to 2022 using the keyword Schooler. The words "ginger nausea vomiting pregnant". Results from 10 journal articles using a systematic review approach were 1 journal article, 2 randomized controlled trials modified into journal articles, and 7 journal articles. Results from all articles reviewed indicate that a total dose of 250 mg of ginger was taken orally for 4 days for the treatment of ginger wedang when ingested by pregnant girls with complaints of nausea and vomiting. 0.05 is effective. Based on the results of the literature review, it is hoped that this network will realize her Wedang Ginger intervention for pregnant girls complaining of nausea and vomiting and will inform similar studies.

**Background:** Pregnant women will experience psychological, physical, and hormonal changes that cause many complaints, such as nausea and vomiting. Emesis gravidarum if ignored will continue to become hyperemesis gravidarum and if left unchecked can cause tissue damage, so that it can endanger the health of pregnant women and the development of the fetus. Initial therapy in emesis gravidarum should include emotional support, dietary changes, and complementary therapies such as giving ginger wedang

**Purpose:** Analyzing the effectiveness of giving ginger wedang to decrease complaints of nausea and vomiting in pregnant women.

**Methods:** This study uses a Literature Review with a search for journal articles in 2018 to 2022 conducted on the PubMed and Taylor & Francis databases with the keyword "Ginger (AND) Nausea Vomiting (AND) Pregnancy" and Scholar with the keyword "Ginger Nausea Vomiting Pregnant Women". The results obtained were 10 journal articles according to the inclusion criteria using the Systematic Review method of 1 journal article, 2 journal articles Randomized Controlled Trial, and 7 journal articles Quasi-experimental studies.

**Results:** The results of all the articles that have been reviewed show that the administration of ginger wedang is effective for consumption by pregnant women with complaints of nausea and vomiting with a dose of ginger as much as 250 mg within 4 days <0.05.

**Conclusion:** From the results of the Literature Review, it is hoped that the community can apply the wedang ginger intervention to pregnant women who experience complaints of nausea and vomiting and can be a reference for further research

**Keywords:** Effectiveness of ginger; nausea; vomiting

## Preliminary

During pregnancy, it can cause psychological, physical, and hormonal changes in the body of pregnant women, because it causes many complaints such as nausea and vomiting that often occur in the first trimester (Kaban et al., 2021). Nausea and vomiting in medical language is called morning sickness or emesis gravidarum, which is a condition of nausea sometimes accompanied by vomiting (Faridah et al., 2020). Nausea and vomiting is a condition where pregnant women are in the 6th week of pregnancy and end at the 11th week or until the 16th week and usually disappear in the late 2nd trimester (Wahyuningsih S, 2019). Complaints of nausea and vomiting is a physiological thing in pregnant women but if not treated it will lead to pathological things, nausea and vomiting can also result in reduced fluid in the body and the occurrence of hemoconcentration which can slow blood circulation as a result affect growth and development of the fetus. . The earliest, most common and most stressful symptom associated with pregnancy is nausea and vomiting.

Disturbances in daily activities and can also have a dangerous impact on the mother and fetus if nausea and vomiting are so severe and frequent (Faridah et al., 2020). Decreased appetite due to emesis gravidarum causes changes in electrolyte balance, for example calcium, potassium, and sodium so that changes in body metabolism can occur. Nausea and vomiting if ignored will continue to become hyperemesis gravidarum that occurs in pregnant women, every time there is continuous vomiting resulting in an impact on the pregnant woman's body such as getting paler, weaker, experiencing a drastic decrease in the number of bowel movements causing a lack of fluid in the body. the body and can cause hemoconcentration which inhibits blood flow which can cause tissue damage and is dangerous for pregnant women regarding their health and development of the fetus (Yanuaringsih et al., 2020). The mother's body becomes very weak due to continuous vomiting, every time the

mother drinks and also eats is another impact of the nausea and vomiting that is felt so that the lack of nutritional intake so that the mother's weight experiences a severe decrease can threaten the life of the mother and fetus (Dewi and Safitri, 2007). 2018).

The incidence of emesis gravidarum reaches 14% of data from all pregnant women worldwide (WHO, 2018). While data based on the World Health Organization in 2016 the incidence of hyperemesis gravidarum obtained 12.5% of all pregnancies in the world (Wardani, 2020). Nausea and vomiting are common in 40-60% multigravida and 60-80% primigravida (Soa et al., 2018). The incidence of emesis gravidarum that occurs in Indonesia is 50-75% experienced by pregnant women in the first trimester (Ministry of Health, 2018). According to Indrayani's research (2018), visits to examinations of pregnant women who experience hyperemesis gravidarum in Indonesia obtained data of 14.8% experienced by all pregnancies. The incidence in East Java Province in pregnant women in trimesters 1 to 2 or in K1-K2 who experience nausea and vomiting is around 10-15% of all pregnant women in a number of 182,815 people in 2015 (Ministry of Health, 2017).

Nausea and vomiting during pregnancy occur due to an increase in levels of the hormone progesterone and the hormone estrogen which is produced from the placenta by the hormone HCG (Elena et al., 2021). Increased levels of progesterone can cause smooth muscle to relax in the gastrointestinal system which can decrease gastric motility and inhibit gastric emptying. Decreased hydrochloric acid secretion, decreased gastric motility, and esophageal reflux also contribute to the occurrence of nausea and vomiting (Wahyuni, 2018). Hormonal changes of every pregnant woman experience a different response, but not all of them experience complaints of nausea and vomiting during pregnancy (Elena et al., 2021).

Pregnant women must be able to adapt to complaints of nausea and vomiting if they cannot adapt, it causes harm to both the pregnant woman and

the fetus. Pregnant women really need adequate nutrition who experience complaints of nausea and vomiting. Reduced nutritional intake, pregnant women experience decreased body weight, and also the fetus in the mother's womb has a bad impact (Dewi and Safitri, 2018). Complications resulting from hyperemesis gravidarum in the form of severe dehydration, increased temperature, tachycardia, jaundice, hunger, alkalosis, emotional withdrawal, impaired family relationships, and depression associated with pregnancy. Hyperemesis gravidarum also has an effect on fetuses with abortion, premature, low birth weight, and malformation in newborns (Andarwati et al., 2020).

The potential that has a large enough influence is that complementary therapies are developed in the health care system, especially for nurses to realize achievements as a national level health development in accordance with the limits of authority and ability (Musviro et al., 2018). Nausea or nausea is an uncomfortable feeling in the back of the throat or stomach that can cause vomiting (DPP PPNI IDHS Pokja Team, 2017). Interventions can be done by managing nausea and vomiting for pregnant women who experience nausea and vomiting. Actions on nausea management are in several categories such as, providing small and interesting food portions, advocating for adequate rest, and using non-pharmacological interventions to manage nausea (eg relaxation, biofeedback, hypnosis, music therapy, acupressure and herbal therapy) (SIKI). , 2018).

In emesis gravidarum initial therapy should be conservative with emotional support, dietary changes, and complementary therapies such as herbs. There are several treatments that can be done in dealing with nausea and vomiting, namely non-pharmacological and pharmacological therapy, pharmacological therapy can be done by taking drugs according to the severity of the symptoms experienced. Drugs such as administration of antiemetics, anticholinergics, corticosteroids, and antihistamines are

recommended drugs (Vitriani et al., 2022). Complaints of nausea and vomiting that occur in pregnant women with nonpharmacological therapy are carried out in ways such as emotional support, dietary adjustments, acupressure and consuming herbal plants such as ginger (Sulistiarini et al., 2018).

Ingredients that are often used as cooking spices in the kitchen, give the aroma of all foods and drinks and can be used as herbal medicine, so it is easy to find ginger plants, besides that many people are affordable because ginger is easy to get in the market and the price is cheap (Putri and Ayudia, 2019). Traditional ingredients can be used by drinking a glass of warm ginger wedang. Utilization of ginger that has been widely developed and easy to obtain. Ginger drink to prevent nausea in pregnant women. Ginger contains essential oils of zingiberena, zingiberol, curcumin, gingerol, flandrena, bisabilene, vitamin A and bitter resins that block serotonin so that neurotransmitters are synthesized by serotonergic neurons in enterochromaffin cells and in the central nervous system of the digestive tract which can have a comforting effect on the body. stomach of pregnant women so as to reduce complaints of nausea and vomiting (Oktaviani et al., 2021). The main product of the ginger plant is ginger rhizome. Ginger rhizome is a source of ginger oil which is considered an essential oil which has the effect of producing an aroma and refreshing so that it can block the vomiting reflex. The spicy ginger taste is caused by oleoresin which can sweat and warm the body. The antiemetic effect arises because of the diterpenoid components, namely gingerol, shogaol, galanolactone (Elena et al., 2021).

Based on research by Febriyeni and Delfina, (2021) showed that the average degree of nausea and vomiting of pregnant women decreased from 7.7 to 3.87, there was an effect of giving ginger wedang in reducing the frequency of emesis gravidarum in first trimester pregnant women.

Likewise in other researchers, namely according to Oktaviani et al., (2021) that

the average result of the intensity of nausea and vomiting before giving ginger wedang was 9.00 After being given ginger wedang the average result was 5.00 p-value = 0.034 < 0,05. So that there is an effect after being given ginger wedang in overcoming nausea and vomiting in pregnant women in the first trimester.

Based on the explanation above, it can be concluded from several journals that have been searched by the author, there is an effectiveness of giving ginger wedang given if the dose is given in the right and right way to pregnant women which reduces nausea and vomiting. Therefore, the authors identify further in the Literature Review about the effectiveness of giving ginger wedang to reduce complaints of nausea and vomiting in pregnant women.

## Research method

Strategies in searching for this Literature study using a database include: Pubmed, Taylor & Francis, and Scholar via the National Library of the Republic link Indonesia. At the initial search stage, there were 849 articles (Pubmed = 11, Taylor & Francis = 42 , and Schoolar = 796), after filtering from 2018-2022. In total there are 836 articles that do not match. After checking by title and Some abstracts are not appropriate, totaling 815 articles. Then there is a total of 34 articles. From a total of 34 there are 15 articles that do not match the inclusion and 9 unindexed articles. Articles reviewed have been indexed by Scopus Q1-Q3 and indexed by Sinta S2-S5. So the total number of articles that will be reviewed is 10 articles. The results of the selection of articles can be described in the Flow Diagram below which: used Literature Review starting from the first search, namely the database electronically, the selection adjusts the title and abstract, inclusion criteria, and totals selected journal articles for use in this Literature Review.

In the strategy of finding articles using the PICOS format as follows:

Criteria	Inclusion	Exclusion
<i>Population</i>	Pregnant women with nausea and vomiting <20 weeks gestation	Pregnant women are not with nausea and vomiting with periods pregnancy >20 weeks
<i>Intervention</i>	Giving ginger drink	Nothing
<i>Comparators</i>	Nothing	Nothing
<i>Outcome</i>	The effect of the action of giving ginger wedang	The effect of giving ginger wedang is not explained
<i>Study Design and Publication Type</i>	RCT, Systematic Review and Quasi-experimental studies	No exceptions
<i>Time</i>	> 2018	< 2018
<i>Language</i>	Indonesian and English	Besides Indonesian and English

## Result

Based on research entitled How Safe Is Ginger Rhizome for Decreasing Nausea and Vomiting in Women during Early Pregnancy yang conducted by Stanisiere et al, (2018) researchers

divided into 3 groups namely the ginger group, placebo, and vitamin B6. On placebo with ginger The result is that ginger has a significant change effect in reducing nausea and vomiting, while vitamin B6 with ginger both had good results which were equally effective (p =

0.128) in reducing nausea and vomiting. Though the impact of Vitamin B6 is greater, there is no significant difference statistics.

In the research of Ozgoli and Saei Ghare Naz, (2018) entitled Effects of Complementary Medicine on Nausea and Vomiting in Pregnancy: A Systematic The review contained 3 groups, namely ginger, placebo and P6 acupressure. more ginger effective than placebo in reducing NVP (85% vs 56%, respectively;  $P < 0.01$ ). Researchers showed that ginger and P6 acupressure had a positive effect in reducing complaints of nausea and vomiting and has no side effects. Complementary treatment of ginger and P6 acupressure is a non-pharmacological option effective in overcoming nausea and vomiting in pregnant women.

In the research of Khorasani et al, (2019) with the title A Systematic Review Of The Efficacy Of Alternative Medicine In The Treatment Of Nausea Vomiting Of Pregnancy compares two groups of vitamin B6 (40 mg/day) and ginger (1 g/day of ginger) daily for 3 weeks. Research result showed that it was significantly greater than that of vitamin B6 ( $p = 0.024$ ). However, the two groups differed significantly in terms of the frequency of nausea.

In the research of Yanuaringsih et al, (2020) with the title The Ginger Stew Effect As Anti-Vomiting in First Trimester Pregnant Women Based on The results of the study found that the average nausea and vomiting in pregnant women in the third trimester was the first time before being given ginger steeping was 3.87 and after being given ginger consumption intervention for 7 days, the frequency of nausea and vomiting was 1.19 that ginger steeping can reduce nausea and vomiting in pregnant women First trimester. Ginger is one of the alternative non pharmacological therapies to overcome nausea and vomiting in pregnant women so that contact pregnant women with drugs can be minimized

In the research of Rufaridah et al, (2019) entitled The Effect of Steeping

Zingiber Offcinale (Ginger) Against Reduction in Emesis Gravidarum in reduce the frequency of nausea and vomiting by consuming ginger steeping 2 times a day as much as 250 mg for 4 days a week shows the results of the study shows that the average emesis gravidarum before being given ginger steeping is 3.38 with a standard deviation of 0.549, while the mean emesis gravidarum after being given ginger steeping is 2.19 with a standard deviation of 0.401.

In the research of Indrayani et al, (2018) with the title The Effectiveness of Giving Wedang Ginger Against the Frequency of Nausea and Vomiting in First Trimester Pregnant Women In North Bengkulu Regency in 2017 shows that the results of the analysis of bivariate analysis showed that there was a difference in value in reducing nausea and vomiting before and after the intervention of wedang ginger as much as 4.80 with  $p = 0.000$ , with a dose of consuming 1 g of fresh ginger per day for four days. It can be seen that giving ginger wedang can reduce the frequency of nausea and vomiting in first trimester pregnant women who experience emesis gravidarum.

In Putri and Ayudia's research, (2019) entitled The Effect of Giving Ginger Drink (Zingiber Officinale Var. Rubrum) to Decrease in First Trimester Emesis Gravidarum results of this study shows the frequency of emesis gravidarum in pregnant women before being given ginger drink as much as 3.65 times / day and after being given ginger drink decreased to 2.18 times/day.

In a study with the title Hot Ginger Drink To Reduce Emesis Gravidarum in Pregnant Women at the Nalumsari Health Center Jepara by researchers Wulandari et al, (2019) assessment of the frequency of nausea and vomiting used for pre is an assessment of the frequency of nausea and vomiting on the 1st day before being given wedang ginger, while the postassessment taken is the frequency of nausea and vomiting on the 4th day after being given ginger wedang got a p

value of 0.000 which showed that giving ginger drink was effective against the frequency of emesis gravidarum in first trimester pregnant women.

In the research of Ningsih et al, (2020) with the title The Effectiveness of Giving Infusion of Ginger Against the Frequency of Emesis Gravidarum I Trimester shows that giving ginger is more effective than inhalatio lemons. The results show that there are differences in the average value of the frequency of complaints nausea and vomiting before and after the intervention of giving wedang ginger with a value of  $Z = -4.123$  and  $p \text{ value} = 0.000$ . This is because ginger provide more active substances than lemon. Ginger is useful directly through a drink that suppresses the vomiting response and the aroma of ginger It is also useful in preventing nausea and vomiting in pregnant women.

In Wardani et al, (2020) researchers, entitled Ginger Extract Effectiveness To Reduce Emesis Gravidarum In First Trimester Pregnant Women At Hj. Dewi Sesmera Medan shows that ginger can reduce nausea and vomiting in first trimester pregnant women. Intervention by consuming ginger extract 100 gram as much as 2x within 4 days The results of the study the level of nausea and vomiting decreased significantly in the ginger group 52% compared to with 17.7% placebo ( $p < 0.05$ ).

journals that have been obtained a total of 10 that have met the criteria inclusion and study topics. The results of the analysis using the Randomized method Controlled Trial of 2 journal articles, Systematic Review of 1 article journals and Quasy-experimental studies as many as 7 journal articles

At the age of pregnant women, the range is between the ages of 20-35 years, in other researchers there are the younger range is  $> 18$  years, the oldest age range for pregnant women in Indonesia is the age of 48 years, while the other pads are not known for the age of the pregnant women.

Characteristics of respondents or participants in this study are maternal patients pregnant with a gestation period of 0-12 weeks (trimester 1), whereas at 2 other journal articles respondents or participants in research are pregnant women with a gestation period of less than 20 weeks (1st trimester to 2nd trimester).

Most of the pregnancy status of pregnant women in the study were: primigravida while the other journal articles are not known for their pregnancy status. Meanwhile, the data on the mother's education level are mostly the education level upper secondary as many as 32 respondents

## Result subtitles

### 1. Characteristics of Research Respondents

Distribution of general data such as design, gestational age, gestational age, pregnancy status, education, and the number of respondents. In Article Search

**Table 1 Giving Wedang Ginger To Pregnant Women With Nausea And Vomiting**

No.	Artikel Jurnal	Giver of Ginger	The duration of giving ginger wedang
1.	(Stanisiere dkk., 2018)	1 g Ginger	4 Days
2.	(Ozgoli dan Saei Ghare 2018)	Naz, 250 mg Ginger	Every 4 hours in 4 days.
3.	(Khorasani dkk., 2019)	1 g Ginger	3 Week
4.	(Yanuaringsih dkk., 2020)	250 mg Ginger	7 days.
5.	(Rufaridah dkk., 2019)	250 mg Ginger	2x in 1 week



6.	(Indrayani dkk., 2018)	1 g Ginger	4 days
7.	(Putri dan Ayudia, 2019)	250 mg Ginger	2x/4 days.
8.	(Wulandari dkk., 2019)	700 mg Ginger	7 days.
9.	(Ningsih dkk., 2020)	250 mg Ginger	2x/4 days.
10.	(Wardani dkk., 2020)	100 gram	4 consecutive days.

Based on the table above, it shows that half of the ginger journals gave 250 mg and 4 days the intervention of giving ginger wedang was carried out.

Table 2 Nausea and Vomiting in Pregnant Women and the Effectiveness of Giving Wedang Ginger

No	Author	Before and After Assessment			Result
		Before	After	Decrease	
1.	(Stanisiere dkk., 2018)	3,6	2,4	1,2	p 0.03
2.	(Ozgoli dan Saei Ghare Naz, 2018)				p <0.01
3.	(Khorasani dkk.,2019)	8,7	5,4	3,3	p <0.05
4.	(Yanuaringsih dkk.,2020)	3,87	1,19	2,68	p 0.000
5.	(Rufaridah dkk.,2019)	3,38	2,19	1,19	p <0.05
6.	(Indrayani dkk, 2018)	9,36	4,80	4,56	p 0.000
7.	(Wulandari dkk., 2019)	3,65	2,18	1,47	p 0.000
8.	(Putri dan Ayudia, 2019)	3,65	2,18	1,47	p 0.000
9.	(Ningsih dkk., 2020)	13,0	7,56	5,44	p 0.000
10.	(Wardani dkk., 2020)	14,50	8,00	6,5	p <0.05

Based on the table above, the level of PUQE nausea and vomiting felt by pregnant women with mild and moderate levels. While in 10 journal articles from the results of statistical tests in giving ginger wedang effectively to reduce complaints of nausea and vomiting. The most significant decrease was found in the journal Ningsih et al., (2020) of 5.44 with a statistical test result of p 0.000.

## Discussion

Based on a study entitled How Safe Is Ginger Rhizome for Decreasing Nausea and Vomiting in Women during Early Pregnancy conducted by Stanisiere et al, (2018) researchers divided into 3 groups, namely the ginger group, placebo, and vitamin B6. In the placebo with ginger the result was that ginger had a significant change effect in reducing nausea and vomiting, while vitamin B6 with ginger both had equally effective results ( $p = 0.128$ ) in reducing nausea and vomiting. Although the impact of Vitamin B6 was greater, there

was no statistically significant difference. In the study of Ozgoli and Saei Ghare Naz, (2018) entitled Effects of Complementary Medicine on Nausea and Vomiting in Pregnancy: A Systematic Review, there were 3 groups namely ginger, placebo and P6 acupressure. Ginger was more effective than placebo in reducing NVP (85% vs 56%, respectively;  $P < 0.01$ ). Researchers showed that ginger and P6 acupressure had a positive effect in reducing complaints of nausea and vomiting and had no side effects.

Complementary treatment of ginger and P6 acupressure is an effective non-pharmacological option to

treat nausea and vomiting in pregnant women.

In the study of Khorasani et al, (2019) with the title A Systematic Review Of The Efficacy Of Alternative Medicine In The Treatment Of Nausea And Vomiting Of Pregnancy, we compared two groups of vitamin B6 (40 mg/day) and ginger (1 g/day ginger) daily. for 3 weeks.

The results showed that it was significantly greater than vitamin B6 ( $p = 0.024$ ). However, the two groups differed significantly in terms of the frequency of nausea.

In the study of Yanuaringsih et al, (2020) with the title Effect of Ginger Stew as Anti-Vomiting in First Trimester Pregnant Women. days of nausea and vomiting frequency 1.19, it was found that ginger infusion was able to reduce nausea and vomiting in pregnant women in the first trimester. Ginger is an alternative non-pharmacological therapy to treat nausea and vomiting in pregnant women so that the contact of pregnant women with drugs can be minimized.

In Rufaridah et al's research, (2019) entitled The Effect of Zingiber Officinale (Ginger) Steep on Reduction in Emesis Gravidarum in reducing the frequency of nausea and vomiting by consuming 250 mg of ginger 2 times a day for 4 days a week, the results showed that the average emesis gravidarum before being given ginger steeping was 3.38 with a standard deviation of 0.549, while the average emesis gravidarum after being given ginger steeping was 2.19 with a standard deviation of 0.401. In the research of Indrayani et al, (2018) with the title The Effectiveness of Giving Wedang Ginger to the Frequency of Nausea and Vomiting in First Trimester Pregnant Women in North Bengkulu Regency in 2017 shows that the results of the bivariate analysis show that there are different values in reducing nausea and vomiting before and after the intervention. Wedang ginger amounted to 4.80 with  $p=0.000$ , with a dose of consuming 1 g of fresh ginger per day for four days.

It can be seen that giving ginger wedang can reduce the frequency of nausea and vomiting in first trimester pregnant women who experience emesis gravidarum.

In Putri and Ayudia's research, (2019) entitled The Effect of Giving Ginger Drink (Zingiber Officinale Var. Rubrum) to Decrease First Trimester Emesis Gravidarum the results of this study showed the frequency of emesis gravidarum in pregnant women before being given ginger drink as much as 3.65 times / day and after being given ginger drink decreased to 2.18 times/day.

In a study entitled Warm Ginger Drink to Reduce Emesis Gravidarum in Pregnant Women at the Nalumsari Health Center Jepara by researchers Wulandari et al, (2019) the assessment of the frequency of nausea and vomiting used for pre-assessment of the frequency of nausea and vomiting on the 1st day before being given ginger wedang, while for The post-assessment taken is the frequency of nausea and vomiting on the 4th day after being given ginger wedang to get a  $p$  value of 0.000 which indicates that the administration of ginger drink is effective against the frequency of emesis gravidarum in first trimester pregnant women.

In the research of Ningsih et al, (2020) entitled The Effectiveness of Giving Ginger Stew on the Frequency of Emesis Gravidarum I Trimester I showed that giving ginger was more effective than giving inhaled lemon. the results showed that there were differences in the average value of the frequency of nausea and vomiting complaints before and after the intervention of giving ginger wedang with a value of  $Z = -4.123$  and  $p$  value = 0.000. This is because ginger provides more active substances than lemon. Ginger is useful directly through drinks that suppress the vomiting response and the aroma of ginger is also useful in preventing nausea and vomiting in pregnant women

Researchers Wardani et al, (2020) entitled The Effectiveness of Ginger Extract To Reduce Emesis Gravidarum In First Trimester Pregnant Women At Hj Clinic. Dewi Sesmera



Medan showed that ginger can reduce nausea and vomiting in first trimester pregnant women. Intervention by consuming 100 gram ginger extract twice within 4 days. The results of the study showed that the level of nausea and vomiting decreased significantly in the 52% ginger group compared to 17.7% placebo ( $p < 0.05$ ).

### Conclusion

Giving ginger wedang of 250 mg with the administration carried out within 4 days. In pregnant women, most of the administration of ginger wedang is given at the age of 20-35 years with a gestational age of <20 weeks who experience complaints of mild nausea and vomiting. Therapy with ginger wedang can effectively reduce complaints of nausea and vomiting in pregnant women at <20 weeks of gestation.

### Suggestion

1. For future authors, it can be used as material for further research related to pregnancy status, types of ginger, and the method of manufacture given because of the lack of previous research.
2. For the community, the results of the study, namely giving ginger wedang to pregnant women who experience emesis gravidarum can be applied so that complaints of nausea and vomiting can decrease.
3. For Clients

For pregnant women, it is hoped that the results of this study can be used as a reference in insight and can apply to pregnant women as an alternative to prevention that is carried out independently at home, if they experience nausea and vomiting before checking with health services.

### Thank-you note

This research is carried out in groups or teams in its completion. Thank you to the team and several people who were involved in completing this literature review so that a systematic research writing structure was obtained

### Bibliography

Abidin, Z. 2020. Textbook of Complementary Nursing "Complementary Therapy for Smart Solutions to Optimize Health". March 2019.

Ana Mariza Dan L. Ayuningtias. 2019. The application of acupressure at point p6 to emesis gravidarum in pregnant women in the 1st trimester. *Holistic Journal of Health*,. 13

Andarwati, D., I. Indriani, and S. Sulistyaningsih. 2020. Early detection of cervical cancer in women of childbearing age. *Journal of Nursing*. 12(2):301–306.

Anisa. 2019. The application of peppermint oil aromatherapy to Mrs. L with hyperemia gravidarum (Heg) in the kb treatment room of RSUD Dr. Achmad Mochtar high hill in 2019. *Stikes Pioneer Padang*.

Aryanta, W. R. 2019. Benefits of ginger for health. *E-Journal of Widya Kesehatan*. 1

Department of health. 2017. *Indonesia Health Profile*

Dewi, P. W. 2021. The Effect of Ginger Herbal Giving to Emesis Gravidarum in First Trimester Pregnant Women: Literature Review. (11150331000034):1–147.

Dewi, W. S. And E. Y. Safitri. 2018. The effect of lemon aromatherapy on emesis gravidarum in the independent practice of the midwife Wanti Mardiwati. 17

Elena, S. F. Sihombing, and T. M. Fahnawal. 2021. The effectiveness of giving ginger candy against nausea and vomiting in pregnant women at the Raja Ahmad Tabib Regional General Hospital Tanjung Pinang. 11(3)

Elvika Fit Ari Shanti, Liberty Barokah, and Budi Rahyu. 2018. The effectiveness of giving Ambon banana and vitamin B to reduce hyperemesis gravidarum in BPM Endah Bkti

Faridah, A. Ponda, and H. T. Pertiwi. 2020. The effect of ginger drink on the decrease in the frequency of emesis gravidarum in first trimester pregnant women in the Lubuk crocodile Padang health center. *Scientific Journal of Health Ar-Rum Salatiga*. 4(1):23–41.

Febriyeni, F. Dan V. Delfina. 2021. Effect of drinking ginger and pandan leaves on the frequency of nausea and vomiting in pregnant women in the first trimester 1 *Journal of Nursing and Midwifery Science*. 12(1):49.

Hotimah, H. 2018. Family Nursing Care for Pregnant Women Emesis Gravidarum on Ny. A And Mrs. D With Nausea Nursing Problems in the Work Area of the Rogotrunan Lumajang Health Center in 2018

Science, N. 2020. Al Qur'an Transliteration By Word And Translation By Word AlKhobir. Surabaya.

Imtihanul Munjiah, T. H. Madjid, H. Herman, F. Husin, I. B. Akbar, and A. Rizal. 2017. Differences in the effect of acupuncture and vitamin b6 on decreasing the intensity of nausea and vomiting in severe emesis gravidarum. *Indonesian Journal of Midwifery Education and Services*. 2(2):1–6.

Indrayani, I. M., R. Burhan, and D. Widiyanti. 2018. The effectiveness of giving ginger wedang on the frequency of nausea and vomiting in first trimester pregnant women in North Bengkulu Regency in 2017. *Journal of Health Science and Technology*. 5(2):201–211.

Intan, P. Dan N. Ismiyatun. 2020. Early detection of risky pregnancies. *Journal of Public Health*. 8(1):40–51.

Isnaini, N. Dan R. Refiani. 2018. An overview of the knowledge of pregnant women in the first trimester about hyperemesis gravidarum at BPM Wirahayu Panjang, Bandar Lampung in 2017. *Journal of Midwifery*. 4(1):11–14.

Kaban, F. Y., B. Vetriyasa, D. Khairani, and C. N. Ginting. 2021. The effect of giving infused water lemon (citrus limon) and red ginger (zingiber officinale rubrum variety) to reduce nausea and vomiting in first trimester pregnant women at the Mariana Pratama Medan clinic in 2020. *Scientific Journal of Midwifery Imelda*. 7(1):1–5.

Kaban, T. A. 2018. The Effectiveness of Hypnotherapy and Administration of B6 Tablets on the Intensity of Nausea Vomiting in Emesis Gravidarum in the Work Area of the Namu Ukur Health Center. *Health Polytechnic of the Ministry of Health of Rimedan*.

Ministry of Health. 2018. Indonesian Demographic and Health Survey. Jakarta.

Khorasani, F., H. Aryan, A. Sobhi, R. Aryan, A. Abavi-Sani, M. Ghazanfarpour, M. Saeidi, Dan F. R. Dizavandi. 2019. A systematic review of the efficacy of alternative medicine in the treatment of nausea and vomiting of pregnancy. <https://doi.org/10.1080/01443615.2019.1587392>. 40(1):10–19.

Kurnia Herni. 2019. The effect of giving ginger aromatherapy on nausea and vomiting in pregnant women in the first trimester. *Journal of Health Research*. 11

Lazdia, W. And N. E. Putri. 2020. The effect of warm ginger in reducing nausea and vomiting of pregnant women with hyperemesis gravidarum. *Real In Nursing Journal*. 3(1):30–39.

Musviro, P. M. R, A. Astuti, Dan Suhari. 2018. *Horticultural Therapy As*

*Complementary Therapies in Nursing: Literature Review*. Digital Repository of the University of Jember Digital Repository of the University of Jember. 12–24.

Ningsih, D. A., M. A. Metha Fahriani, and Mika Oktarina. 2020. The effectiveness of ginger infusion on the frequency of first trimester emesis gravidarum. *Journal of*

Smart Midwifery. 7(1)

Oktaviani, P., T. Indrayani, and S. Dinengsih. 2021. Effectiveness of infusion of ginger and mint leaves on nausea and vomiting in first trimester pregnant women in PMB Bogor Regency in 2021. *Journal For Quality In Women's Health*. 4(2):146–151.

Ozgili, G. Dan M. Saei Ghare Naz. 2018. Effects of complementary medicine on nausea and vomiting in pregnancy: a systematic review. *International Journal of Preventive Medicine*. 9(1)

Ppni, T. P. S. D. 2018. *Indonesian Nursing Intervention Standards: Nursing Definitions And Actions*. Edition Issue 1. South Jakarta.

Putri, A. D., D. Andiani, Dan Haniarti. 2017. The effectiveness of giving warm ginger in reducing the frequency of nausea and vomiting in pregnant women in the 1st trimester. *Proceedings of the National Seminar*. 1(1):978–979.

Putri, I. And F. Ayudia. 2019. The effect of giving ginger drink (*zingiber officinale* var. *Rubrum*) on the reduction of first trimester emesis gravidarum. *Jik- Journal of Health Sciences*. 3(2):97.

R Nurazizah. 2018. Knowledge of first trimester pregnant women about emesis gravidarum in the working area of the Ngasem Public Health Center, Gampengrejo District, Kediri Regency. (*Journal of Health*)

Rifiana, A. J. And M. Falasifah. 2020. A stimulus research report to overcome morning sickness in pregnant women in the working area of the Serang City Health Center in 2020, the midwifery study program. *Unas*. 1–61.

Rosyada, A. N. And M. Ekacahyaningtyas. 2021. An overview of the level of anxiety of pregnant women at risk during the COVID-19 pandemic. 17.

Rufaridah, A., Y. Herien, and E. Mofa. 2019. The effect of steeping *zingiber ofcinale* (ginger) on the reduction of

emesis gravidarum. *Journal of Endurance: Scientific Study of Health Problems*. 4(1):204–209.

Sari, N. M. D. P. 2018. Overview of Nursing Care for First Trimester Primigravida Mothers with Nausea at Puskesmas Iv Denpasar Selatan

Setyowati Er, H. 2018. Acupressure for women's health based on research results. Magelang: Unimma Press.

Soa, U. O. M., R. Amelia, and D. A. Octaviani. 2018. Comparison of the effectiveness of giving boiled red ginger and mint leaves with lime and honey on nausea and vomiting in first trimester pregnant women at Waepana Health Center, Ngada, Ntt. *Journal of Midwifery*. 8(2):157–167.

Sri Dewi Saragih. 2019. The effectiveness of ginger drink on the reduction of emesis gravidarum in first trimester pregnant women at the Niar Pratama clinic. Medan Helvetia Institute of Health.

Stanisiere, J., P. Y. Mousset, Dan S. Lafay. 2018. How safe is ginger rhizome for decreasing nausea and vomiting in women during early pregnancy? *Foods*. 7(4)

Sulistiari, U., M. N. Widyawati, and D. L. Rahayu. 2018. Literature study: acupressure pericardium and citrus aromatherapy to reduce nausea and vomiting of pregnant women. *Journal of Midwifery*. 8(2):146.

Susanti. 2019. The relationship between knowledge and behavior of pregnant women about the benefits of ginger (*zingiber officinale*) in overcoming nausea and vomiting in the first trimester of pregnancy in the working area of the Botanical Health Center in Batam. *Science Tower*. 13(11):89–95.

Tasya Hani Fatwa. 2020. The effect of ginger decoction on complaints of nausea and vomiting of pregnant women. *Hutama Medical Journal*. 02

DPP PPNI SDKI Pokja Team. 2017. Indonesian Nursing Diagnosis Standards

Pokja SIKI DPP PPNI Team. 2018. Indonesian Nursing Intervention Standards

Pokja SLKI DPP PPNI Team. 2018. Indonesian Nursing Outcome Standard Edition 1

Ulfika, R. 2019. Midwifery Care for First Trimester Pregnant Women With Emesis Gravidarum

Vitriani, O., F. Alyensi, and A. Susanti. 2022. Effectiveness of peppermint aromatherapy and administration of ginger juice on nausea and vomiting of pregnant women at PMB Siti Julaeha Pekanbaru. *Jomis (Journal of Midwifery Science)*. 6(1):47–54.

Wahyuni, Lin Sri. 2018. Nursing Care for Mrs. S And Mrs. W Hyperemesis Ravidarum with Activity Intolerance

Nursing Problems in the Lotus Room of Dr, Haryoto Lumajang Hospital in 2018. Jember University.

Wahyuningsih S. 2019. Textbook of Maternity Nursing. Bondowoso.

Wardani, F. K., Nurrahmaton, and S. Juliani. 2020. The effectiveness of extra ginger to reduce emesis gravidarum in 1st trimester pregnant women at the HJ Dewi Sesmera Clinic in Medan. *Journal of Midwifery Maternity*. 5(2):64–77.

Wardani, R. K. 2020. The effectiveness of the consumption of sugarcane juice in combination with ginger water on hyperemesis gravidarum in the working area of the Sidomulyo Inpatient Public Health Center, Pekanbaru. *Al-Insyirah Midwifery: Journal of Midwifery Sciences*. 9(1):36–41.

WHO. 2018. Emesis Gravidarum. <https://www.WHO.Int/>

Wulandari, D. A., D. Kustriyanti, and R. Aisyah. 2019. Warm ginger drink to reduce emesis gravidarum in pregnant

women at the Nalumsari Jepara Public Health Center. *Journal of Smart Midwifery*. 6(1):42.

Yanuaringsih, G. P., A. S. Nasution, and S. Aminah. 2020. The effect of steeping ginger as an anti-vomiting in pregnant women in the first trimester. *Window Of Health: Journal of Health*. 151–158.

Yuliani, Elfirayani Saragih, A. Astuti, Wahyuni, M. Ani, and Y. Muyassaroh. 2021. Pregnancy Care. Our Writing Foundation.