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The Effect Of Ginger Water Brewing On Overcoming Emesis Gravidarum In The Working Area Of The Baiturrahman Community Health Center In Banda Aceh City

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ABSTRACT
Emesis gravidarum is a common symptom ranging from discomfort to prolonged vomiting, affecting approximately 50-60% of pregnant women. The potential impacts of emesis gravidarum on pregnant women include decreased appetite, which can lead to malnutrition and dehydration, which can be dangerous for both mother and fetus. Data from the Baiturrahman Community Health Center in Banda Aceh City indicates that in 2024, 187 pregnant women (85.7%) experienced emesis gravidarum. The purpose of this study was to determine the effect of ginger water infusion on the management of emesis gravidarum in the Baiturrahman Community Health Center's working area in Banda Aceh City in 2025. The research method used was a quasi-experimental one-group pretest-posttest approach with a purposive sampling technique with a sample size of 30 pregnant women with emesis gravidarum in the Baiturrahman Community Health Center Work Area, Banda Aceh City. The time of this research was conducted on April 22 to May 8, 2025 with univariate and bivariate analysis with paired t-test. The results showed that before giving ginger, most of them experienced emesis gravidarum in the moderate category, namely 23 people (76.7%), while after giving ginger, most of them experienced emesis gravidarum in the mild category, namely 25 people (83.3%). Before being given ginger water infusion, the average emesis gravidarum score was 8.43, while after being given ginger water infusion, the average score became 4.73 with a decrease of 3.70 and a p-value of 0.000 < 0.05, so there is an effect of giving ginger water infusion on emesis gravidarum. It is hoped that health workers will implement the administration of ginger water as a complementary therapy in treating emesis gravidarum and also provide counseling about the benefits of ginger water for pregnant women.

Keywords: Ginger Water, Emesis Gravidarum, Pregnant Women, Complementary Therapy

Introduction

Pregnancy is a natural process. The changes that occur during a normal pregnancy are physiological, not pathological. During pregnancy, the mother will experience both physical and psychological changes that can cause discomfort. Discomforts that occur during pregnancy include heartburn, joint pain, varicose veins, constipation, frequent urination, leg cramps, back pain, and nausea and vomiting (Arfiah, 2022).

According to 2021 World Health Organization (WHO) data, there are significant differences in women's access to cesarean sections, depending on where they live in the world. In the least developed countries, approximately 8% of women give birth by cesarean section, while in sub-Saharan Africa the figure is only 5%, indicating a lack of access to this life-saving operation. In contrast, in Latin America and the Caribbean, the figure

reaches 4 in 10 (43%) of all births; Canada 0.8%, Sweden 0.3%, Norway 0.9%, China 10.8%, California 0.5%, Pakistan 2.2%, Turkey 1.9%; Asia 2%, and Indonesia 1-3% (WHO, 2022).

Nausea and vomiting rarely cause death, but the incidence remains quite high in Indonesia, at 20.3% (Ministry of Health, 2022). According to data obtained from the Aceh Provincial Health Office in 2022, cases of emesis gravidarum were 56.8% (Aceh Provincial Health Office Profile, 2022). The potential impacts of emesis gravidarum on pregnant women include decreased appetite, which can lead to malnutrition and dehydration, which can be dangerous for both mother and fetus. Furthermore, nausea and vomiting cause changes in electrolyte balance, including potassium, calcium, and sodium, which alters the body's metabolism and can lead to hyperemesis gravidarum (Kristiningtyas, 2023).

Efforts to overcome nausea and vomiting can be done pharmacologically and non-pharmacologically. Pharmacological treatment includes the administration of vitamins and antihistamines. Meanwhile, non-pharmacological treatment can be given lemon aromatherapy, hand massage, Ambon bananas, and ginger (Fajria, 2024). Ginger can be used to overcome emesis gravidarum by providing light and easily digestible foods, one of which is ginger. Ginger contains zingiberol, a content in essential oils that can block serotonin, a neurotransmitter synthesized in serotonergic neurons in the central nervous system and enterochromaffin cells in the digestive tract. As a result, the work of the digestive tract muscles relaxes and weakens, resulting in a feeling of comfort in the stomach, thereby reducing nausea and vomiting (Marlina, 2023).

The results of a study conducted by Putri (2023), on the effect of giving ginger on reducing emesis gravidarum in first trimester pregnant women at PMB Tasikmadu Karanganyar, the results of the study showed that there was a decrease in nausea and vomiting after being given ginger water infusion for 4 days, namely from 5.4 times to 3.2 times. This is supported by Puspita's research (2022), the effect of ginger water infusion on reducing nausea and vomiting in first trimester pregnant women at PMB Lidya Harsa, North Lampung Regency, the results of the study showed that there was a decrease in nausea and vomiting after being given ginger water infusion for 7 days, namely from 7.1 times to 5.4 times.

Data from the Banda Aceh City Health Office in 2024 showed that the number of pregnant women was 8,162. The largest number of pregnant women was at the Baiturrahman Community Health Center (670), Ulee Kareng Community Health Center (542), and Meuraxa Community Health Center (424) (Banda Aceh City Health Office, 2024). Data from the Baiturrahman Community Health Center showed that from January to December 2024, the number of pregnant women in the first trimester was 218 and the number of pregnant women experiencing emesis gravidarum was 187 (85.7%). From January to May 2025, the number of pregnant women in the first trimester experiencing emesis gravidarum was 95. The results of a preliminary study conducted by researchers on 7 pregnant women experiencing emesis gravidarum showed that only 2 women took medication to reduce nausea and vomiting, while 5 pregnant women did not take medication to reduce nausea and vomiting and did not undergo other therapies.

Based on this background, the researcher is interested in conducting research with the title "The Effect of Giving Ginger Water Brewing to Overcome Emesis Gravidarum in the Working Area of Baiturrahman Health Center, Banda Aceh City in 2025."

Research Methods

This type of research is quasi-experimental (research that is close to a real experiment, where this research aims to directly test the effect of one variable on another variable and test the hypothesis of a causal relationship) with a one-group pretest-posttest design, namely research conducted by providing ginger treatment (Notoatmodjo, 2020).

The frequency of nausea and vomiting was measured using the pregnancy unique quantification of emesis and nausea score as a pretest. After that, the sample was given 2.50 grams of ginger brewed with 50 ml of water once for 7 consecutive days. Then, on the 8th day, the frequency of nausea and vomiting was remeasured using the pregnancy unique quantification of emesis and nausea score as a post-test.

Results and Discussion Results

a. Characteristics

Table 1: Frequency Distribution of General Characteristics of Respondents in the Working Area of the Baiturrahman Community Health Center, Banda Aceh City, 2025

No	Age	Frequency	Percentage (%)
1	< 20 age	1	3,3
	20-35 age	26	86,7
	>35 age	3	10
	Amount	**30**	**100**
No	**Education**	**Frequency**	**Percentage (%)**
2	Elementary	2	6,6
	Intermediate	20	66,7
	High	8	26,7
	Jumlah	**30**	**100**
No	**Work**	**Frequency**	**Percentage (%)**
3	Work	9	30
	Doesn't work	21	70
	Amount	**30**	**100**
No	**Gestational Age**	**Frequency**	**Percentage (%)**
4	6 -8 Weeks	10	33,3
	9-12 Weeks	20	66,7
	Jumlah	**30**	**100**
No	**Gravida**	**Frequency**	**Percentage (%)**
5	Primigravida (1)	14	46,7
	Multigravida (2-4)	15	50
	Grandemultigravida (≥5)	1	3,3
	Amount	**30**	**100**

Sumber : Data Primer (Diolah tahun 2025)

Based on table 4.1, it can be seen that of the 15 respondents aged 20-35 years, there were 26 respondents (86.7%), 20 respondents (66.7%) had secondary education, 21 respondents (70%) were unemployed, 20 respondents (66.7%) were pregnant at 9-12 weeks and 15 respondents (50%) were multigravida.

b. Univariate Analysis

1. Emesis Gravidarum Before Giving Ginger Water Brew

Table 2 : Frequency Distribution of Respondents Based on Emesis Gravidarum in Pregnant Women Before Ginger Water Infusion in the Baiturrahman Community Health Center Work Area Banda Aceh City, 2025

No	*Emesi gravidarum (pretest)*	f	%
1	Light	7	23,3
2	Currently	23	76,7
	Amount	**30**	**100.0**

Sumber : Data Primer, (diolah tahun 2025)

Based on table 4.2, it can be seen that of the 30 respondents before giving ginger, the majority experienced emesis gravidarum in the moderate category, namely 23 people (76.7%).

2. Emesis Gravidarum After Giving Ginger Water Brew

Table 3: Frequency Distribution of Respondents Based on Emesis Gravidarum in Pregnant Women Before Ginger Water Infusion in the Baiturrahman Community Health Center Work Area Banda Aceh City, 2025

No	*Emesi gravidarum (posttest)*	f	%
1	Light	25	83,3
2	Currently	5	16,7
	Amount	**30**	**100.0**

Sumber : Data Primer, (diolah tahun 2025)

Berdasarkan tabel 4.3 dapat diketahui bahwa dari 30 responden setelah diberikan jahe sebagian besar mengalami *emesis gravidarum* pada kategori ringan yaitu sebanyak 25 orang (83,3%).

c. Normality Test

Table 4: Results of Normality Test (Shapiro Wilk Test)

Group	*Shapiro-Wilk*		*p value*
	Statistics	**Df**	
Pretest	0,950	30	0,170
Posttest	0,946	30	0,130

Sumber : Data Primer (Diolah Tahun 2025)

Based on table 4.3, it can be seen that of the 30 respondents after being given ginger, the majority experienced mild emesis gravidarum, namely 25 people (83.3%).

d. Bivariate Analysis

Table 5: The Effect of Ginger Water on Emesis Gravidarum in Pregnant Women in the Work Area of Baiturrahman Community Health Center, Banda Aceh City in 2025

Giving Ginger Water Brew	*Emesis Gravidarum*		*p value*
	Mean	**Difference Mean**	
Pretest	8,43		
Posttest	4,73	3,70	0,000

Sumber : Data Primer (Diolah Tahun 2025)

Based on table 4.5, it can be seen that before being given ginger water infusion, the average emesis gravidarum score was 8.43, whereas after being given ginger water infusion, the average score became 4.73 with a decrease value of 3.70 and a p value of 0.000 <0.05, so there is an effect of giving ginger water infusion on emesis gravidarum.

Discussion

a. Emesis Gravidarum Before Giving Ginger Water Brew

The results of the study showed that of the 30 respondents before giving ginger, the majority experienced emesis gravidarum in the moderate category, namely 23 people (76.7%). The results of research conducted by Marlina (2023), regarding the effect of giving ginger tea on the level of emesis gravidarum in first trimester pregnant women at PMB Atmirah Purwantini, Bogor City, the results of the study showed that before giving ginger tea, most of them experienced emesis gravidarum in the moderate category, namely 8 respondents (53.3%).

Nausea and vomiting during pregnancy are likely caused by increased levels of the hormones estrogen and progesterone, produced by the HCG hormone in the serum from the placenta. Furthermore, progesterone's effect on gastric smooth muscle tone, particularly on upper gastrointestinal motility and the lower esophageal sphincter, also plays a role in nausea and vomiting (Hastuty, 2024).

b. Emesis Gravidarum After Giving Ginger Water Brew

The results of the study showed that of the 30 respondents after being given ginger, the majority experienced mild emesis gravidarum, namely 25 people (83.3%). The results of research conducted by Marlina (2023), regarding the effect of giving ginger infusion on the level of emesis gravidarum in first trimester pregnant women at PMB Atmirah Purwantini, Bogor City, the results of the study showed that before giving ginger water infusion, most of them experienced emesis gravidarum in the mild category, namely 10 respondents (66.7%).

Pregnancy causes disruption of gastric emptying as a result of pressure from the enlarging uterus and muscle relaxation due to the influence of the hormone progesterone. Ginger can increase the production of enzymes and digestive acids which speed up the process of digesting food in the stomach. This mechanism will ultimately help prevent nausea and vomiting (Arianti, 2020).

c. The Effect Of Ginger Water Brew On Emesis Gravidarum

The results of the study showed that before being given ginger water infusion, the average emesis gravidarum score was 8.43, whereas after being given ginger water infusion, the average score became 4.73 with a decrease value of 3.70 and a p value of 0.000 <0.05, so there was an effect of giving ginger water infusion on emesis gravidarum.

The results of a study conducted by Putri (2023), on the effect of giving ginger on reducing emesis gravidarum in pregnant women in the first trimester at PMB Tasikmadu Karanganyar, the results of the study showed that there was a decrease in nausea and vomiting after being given ginger water infusion for 4 days, namely from 5.4 times to 3.2 times, so that there was a significant effect between ginger boiled water on reducing nausea and vomiting in pregnant women in the first trimester. Ginger is one of the spices that is often used as a traditional medicine in Indonesia, one of which is to reduce nausea and vomiting because it contains zingiberol. Ginger infusion twice a day with 250 mg of ginger can reduce nausea and vomiting in the first trimester, ginger

plays a role in stimulating gastrointestinal tract motility and encouraging saliva secretion and ginger to loosen and weaken the muscles of the digestive tract, because the gingerol compound in ginger blocks serotonin which increases progesterone, so that smooth muscle tone and motility decrease and esophageal regurgitation occurs.

This is supported by Puspita's research (2022), the effect of ginger infusion on reducing nausea and vomiting in pregnant women in the first trimester at PMB Lidya Harsa, North Lampung Regency, the results of the study showed that there was a decrease in nausea and vomiting after being given ginger infusion for 7 days, namely from 7.1 times to 5.4 times, so there was a significant effect between giving ginger and emesis gravidarum. Giving ginger water with nausea and vomiting was given as much as 2.50 grams of sliced ginger and brewed with 250 ml of hot water given 2x1 for 4 days.

The ginger content contained in essential oil is zingiberol which can block serotonin, a neurotransmitter synthesized in serotonergic neurons in the central nervous system and enterochromaffin cells in the digestive tract, as a result the work of the digestive tract muscles relaxes and weakens then creates a feeling of comfort in the stomach, so that nausea and vomiting can be reduced (Ramadhani, 2020).

Researchers assume ginger water is effective in reducing nausea and vomiting in pregnant women, where pregnant women after being given 2.50 mg of ginger water given once a day for 7 consecutive days experienced a decrease in the frequency of nausea and vomiting, this is because ginger water contains a lot of zingeberol which will emit biomemolecules. In the results of the study, the majority of pregnant women experienced a decrease in nausea, as many as 25 people out of 30 people, and vomiting after receiving ginger water.

Nausea and vomiting in pregnant women often occur early in pregnancy and can interfere with food and fluid intake and maternal comfort. Maslow's theory, which explains the hierarchy of basic human needs, can be linked to the occurrence of nausea and vomiting in pregnant women and the provision of ginger as a solution. Pregnant women who experience nausea and vomiting feel that their basic needs, namely physiological needs (food and drink) and the need for safety and comfort, are being disrupted. Ginger, with its antiemetic properties, can help meet these physiological needs by reducing nausea and vomiting, so pregnant women feel more comfortable and can continue to meet higher-level needs (Sari, 2023).

Five mothers had persistent nausea and vomiting scores. This was due to other influencing factors, such as the relatively young age of two mothers, aged 19 and 20. Young mothers lack experience in managing nausea and vomiting and require adaptation in preparation for pregnancy, which can trigger stress, thus worsening nausea and vomiting. Furthermore, low maternal education levels also influence how they receive information.

The study also showed that one mother's nausea and vomiting scores persisted at age 37. This was due to the mother working, which resulted in a greater mental burden, which affected the reduction of nausea and vomiting. Furthermore, researchers interviewed all respondents about the dietary factors consumed during the therapy. The mother consumed spicy, sour, and oily foods, which triggered nausea and vomiting. She also ate small, frequent meals.

According to Fitriani (2023), several factors influence emesis gravidarum, including age, parity, and workload. Age is one of the triggers for emesis gravidarum. Women under 20 years of age are at greater risk of experiencing emesis gravidarum, as this is linked to the body's anatomical and physiological readiness. It is also linked to psychological readiness to accept pregnancy. Meanwhile, being over 35 years of age is associated with

decreased bodily function and stress, which can trigger nausea and vomiting. Parity is a risk factor for emesis gravidarum in pregnant women. Higher parity lowers the incidence of nausea and vomiting. Primigravida mothers experience nausea and vomiting more frequently than multigravida mothers. Nausea and vomiting are also often linked to the mother's psychological condition. Mothers who experience psychological stress (workload) and stress can increase nausea and vomiting.

Conclusion

1. Before ginger administration, most women experienced moderate emesis gravidarum (23 women (76.7%).
2. After ginger administration, most women experienced mild emesis gravidarum (25 women (83.3%).
3. Before ginger infusion, the average emesis gravidarum score was 8.43, while after ginger infusion, the average score decreased to 4.73, with a decrease of 3.70 and a p-value of 0.000 <0.05. Therefore, there is an effect of ginger infusion on emesis gravidarum. Ha is accepted, but H0 is rejected, meaning there is an effect of ginger infusion in treating emesis gravidarum.

Suggestion

It is expected that these results will provide benefits to various parties, particularly respondents and the community, especially pregnant women, by encouraging them to actively seek and utilize information on managing nausea and vomiting during pregnancy through the consumption of ginger water. For Community Health Centers, it is hoped that health workers will implement ginger water as a complementary therapy in the management of emesis gravidarum and provide counseling on the benefits of ginger water for pregnant women. Meanwhile, educational institutions are expected to play a role in antenatal care services related to pregnancy-related nausea and vomiting through research and community service activities, such as health education, community outreach programs, and home visits to pregnant women.

Reference

1. Afni, Y, dkk. 2024. *Buku Ajar Asuhan kebidanan pada Kehamilan*. Jawa Tengah. Media Pustaka Indo
2. Afriyanti, K. 2023. *Buku Ajar Asuhan Kehamilan S1 Kebidanan Jilid I*. Jakarta. Mahakarya Citra Utama
3. Arianti, dkk. 2020. *Pengaruh Pemberian Ekstrak Jahe dengan Kejadian Mual dan Muntah Pada Ibu Hamil Trimester I di Wilayah Kerja Puskesmas Sukarame Bandar Lampung*. Jurnal Malahayati Nursing. Volume 2 (2):326-335
4. Arfiah. 2022. *Asuhan Kebidanan Kehamilan 1*. Padang. Insan Cendekia Mandiri
5. Dinas Kesehatan Kota Banda Aceh. 2023. *Distribusi Kehamilan.* Kabupaten Aceh Besar
6. Dinas Kesehatan Provinsi Aceh. 2022. *Prevalensi Mual dan Muntah.* Profil Kesehatan Aceh
7. Ebtavanny, dkk. 2022. *Pengaruh Jahe Terhadap Penurunan Frekuensi Mual dan Muntah Pada Ibu Hamil*. Jurnal Sains Farmasi. Volume 3 (1):38-49
8. Ernawati, dkk. 2022. *Ketidaknyamanan dan Komplikasi Yang Sering terjadi Selama Kehamilan*. Malang. Rena Cipta Mandiri
9. Fajria, dkk. 2024. *Terapi Komplementer Mual dan Muntah dalam Kehamilan*. Jawa Barat. Adanu Abimata.
10. Fitriani, A, dkk. 2023. *Buku Ajar Asuhan Kehamilan DIII Kebidinan Jilid III*. Jakarta, Mahakarya Citra Utama.
11. Harahap, A, Y, dkk. 2020. *Pengaruh Pemberian Air Rebusan Jahe Terhadap Penurunan Mual dan Muntah pada Ibu Hamil Trimester I*. Jurnal Ilmu Keperawatan. Volume 8 (1):1-12
12. Harianja. 2021. *Pengaruh Pemberian Seduhan Air Jahe Terhadap Penurunan Mual dan Muntah pada Pasien*

Emesis Gravidarum di Puskesmas Tawangharjo. Jurnal Kebidanan. Volume 2 (1):1-9
13. Hastuty. 2024. *Pemanfaatan terapi Komplementer dalam Mengatasi Mual dan Muntah pada Ibu Hamil*. Jambi. Sonspedia Publishing Indonesia
14. Kemenkes. 2022. *Prevalensi Mual dan Muntah*. www.depkes.co.id (Dikutip pada tanggal 20 November 2024)
15. Kristiningtyas, dkk. 2023. *Efektifitas Rebusan Jahe Terhadap Penurunan Emesi Gravidarum di Desa Dungsari Kabupaten Wonogiri*. Jurnal Keperawatan. Volume 12 (1):31-36
16. Lestari, dkk. 2023. *Efektivitas Pemberian Air Jahe Merah Terhadap Ibu hamil Trimester I dengan Emesis Gravidarum*. Jurnal Farmasetis. Volume 12 (3):345-350
17. Mardiyana, S, dkk. 2021. *Asuhan Kebidanan Kehamilan*. Malang. Rena Cipta Mandiri
18. Marlina, dkk. 2023. *Pengaruh Pemberian Seduhan Jahe Terhadap tingkat Emesis Gravidarum Pada Ibu Hamil Trimester I di PMB Atmirah Purwantini Kota Bogor*. Jurnal ISSN. Volume 4 (4):6088-6096
19. Muzakir, U, dkk. 2024. *Statistik Dasar*. Jawa Timur, Askara Sastra Media
20. Notoatmodjo, S. 2020. *Metode Penelitian*. Jakarta. EGC
21. Puskesmas Baiturrahman. 2022-2023. *Data Kehamilan dan Kasus Emsis Gravidarum.* Kota Banda Aceh
22. Puspita., A, dkk 2022. *Pengaruh Air Seduhan Jahe Terhadap Penurunan Mual Dan Muntah Pada Ibu Hamil Trimester I di PMB Lidya Harsa Kabupaten Lampung Utara*. Jurnal Maternitas Aisyah. Volume 1 (2):134-141
23. Putri, L, dkk. 2021. *Asuhan Kebidanan Kehamilan*. Yogyakarta. Yayasan Kita Menulis
24. Putri. 2023. *Pengaruh Pemberian Jahe Terhadap penurunan Morning Sickness pada Ibu Hamil Trimester I di PMB Tasikmadu Karanganyar*. Jurnal Media Nusantara. Volume 1 (4):12-20
25. Safitri, E. 2021. *Asuhan Kehamilan dengan Emesis Gravidarum di PMB Eva Lampung*. Skripsi. Politeknik Kesehatan Tanjungkarang Bandar Lampung.
26. Sari, A, P, dkk. 2023. *Kejadian Emesis Gravidarum pada Ibu Hamil Trimester I di Desa Suciharjo Kecamatan Parengan Kabupaten Tuba*n. Jurnal Health Science Indonesia. Volume 3 (2):1-7
27. Sukmawati, A, S, dkk. 2023. *Buku Ajar Pemenuhan Kebutuhan Dasar Manusia. Kota Jambi*. Sonpedia Publishing Indonesia.
28. WHO. 2022. *Emesis Gravidarum*.https://who.int (dikutip pada tanggal 20 November 2024).
29. Wulandari, S. 2021. *Asuhan Kebidanan Kehamilan*. Bandung. Media Sains Indonesia
30. Yuliana, dkk. 2023. *Efektifitas Terapi Jahe Hangat dalam Mengatasi Emesis Gravidarum pada Ibu Hamil*. Jurnal of Health. Volume 10 (1):47-54
31. Yuliani. 2021. *Asuhan Kehamilan.* Yogyakarta. Yayasan Kita Menulis
32. Yulivantina. 2024. *Buku Ajar Asuhan Kebidanan Pada Kehamilan*. Jakarta. Mahakarya Citra Utama

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