



**ATTITUDE OF FIRST-TRIMESTER PREGNANT WOMEN TOWARD
WARM GINGER CONSUMPTION FOR REDUCING NAUSEA AND VOMITING**

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ABSTRACT

Morning sickness is a common complaint experienced by pregnant women in the first trimester and is associated with hormonal changes, particularly increased levels of beta-human chorionic gonadotropin (β -hCG). One non-drug method often used to reduce nausea and vomiting is drinking warm ginger tea. This study aimed to determine the attitudes of pregnant women in their first trimester toward consuming warm ginger tea as a way to relieve nausea and vomiting. This study used a quantitative descriptive approach and selected participants through quota sampling. The group included 20 pregnant women in their first trimester who had morning sickness. Information was gathered using a Likert-scale questionnaire and was analyzed in a descriptive way. The tool used for collecting data was a questionnaire. The process of handling the data involved editing, coding, scoring, entering data, cleaning it, and organizing it into tables. Data were analyzed using frequency tables. A total of 85% of respondents expressed a positive attitude toward consuming warm ginger drinks, while 15% expressed a negative attitude. Most pregnant women in their first trimester have a positive attitude toward consuming warm ginger drinks as a non-pharmacological way to reduce nausea and vomiting. A healthy reproductive age and higher education level play a role in increasing pregnant women's ability to accept health information and their confidence in practicing consuming warm ginger to manage morning sickness.

Keywords: first trimester; morning sickness; pregnancy; pregnant women's attitudes; warm ginger

INTRODUCTION

Pregnancy is the process by which a sperm and an ovum unite, followed by nidation or implantation. Calculating the time from fertilization to birth, a normal pregnancy lasts 40 weeks, or approximately 9 months, according to the international calendar (Prawirohardjo, 2016). Pregnancy consists of three stages, where the first stage lasts for 12 weeks, the second stage for 15 weeks (from the 13th to the 27th week), and the third stage for 13 weeks (from the 28th to the 40th week). Pregnancy process is a series of interrelated events that include ovulation, which releases an egg, followed by the movement of sperm and egg. This process then leads to fertilization and development of the zygote, implantation in the uterus, placenta formation, and growth of the fertilized egg until full term (prof. dr. ide bagus gede manuaba, 2014).

Throughout pregnancy, patients typically experience changes in various organ systems, such as cardiovascular, respiratory, digestive, urinary, and others, in response to fetal growth. Many physiological changes that occur during pregnancy can be caused by changes in hormones produced by the placenta (Mohiuddin., 2023). One such hormone is human chorionic gonadotropin (hCG), specifically the beta subunit (beta-hCG). Beta-hCG is produced by syncytiotrophoblastic cells in the placenta and plays a crucial role in stimulating the corpus luteum to produce progesterone, which is essential for maintaining pregnancy. Research shows that β -HCG levels increase with gestational age. Individuals with hyperemesis gravidarum tend to have higher β -HCG levels. This increase in hormone levels can cause symptoms such as dizziness and nausea, as non-pregnant women only average 5 IU, but the increase can double within 3 days. β -HCG levels continue to rise until the 14th or 16th week of

pregnancy and decline before delivery. The increase in β -HCG in the first trimester is considered normal due to the interaction between autocrine and paracrine systems and the influence of hormones such as estradiol and various growth factors. Therefore, β -HCG levels play a significant role in causing hyperemesis gravidarum (Mamesah et al., 2019).

According to the World Health Organization (WHO), 12.5% of pregnant women worldwide experience nausea and vomiting. In Indonesia, this percentage reaches 14.8%, with 60-80% of cases experienced by first-time pregnancies and 40-60% by previous pregnancies (Julianti & Sugiharti, 2025). Data from the Indonesian Ministry of Health in 2021 showed that East Java had the highest incidence of nausea and vomiting. Preliminary research at the TPMB Bu Muyati revealed that 25% of pregnant women experienced morning sickness in the first trimester.

Prolonged nausea and vomiting during pregnancy can affect the mother's health, causing weakness, pale skin, and decreased fluid levels. This can lead to serious problems such as premature birth and low birth weight in babies. If left untreated, these symptoms can worsen and lead to dehydration and malnutrition, a condition known as hyperemesis gravidarum. Several factors, such as education level, type of employment, age, and number of previous pregnancies, can influence this condition (Noel M. Lee, M.D. Sumona Saha, 2013).

Traditional beverages like warm ginger tea can help relieve morning sickness in pregnant women. Ginger can improve digestion and reduce the urge to vomit. The essential oils and gingerol in ginger benefit blood flow and provide additional energy (Widowati et al., 2020). To date, no adverse effects from ginger on the fetus have been identified, although some countries warn about possible adverse effects. Ginger also has blood-thinning properties, making it safe to consume up to 2 grams per day in Europe and North America (Hernawati et al., 2025).

According to one theory, compliance is influenced by individual attitudes, which can be influenced by various elements such as personal, social, environmental, physical, and psychological factors. A pregnant woman's attitude toward consuming warm ginger drinks plays a crucial role in managing morning sickness and educating her about a healthy pregnancy. To relieve morning sickness, pregnant women can enjoy warm ginger drinks. Warm ginger drinks contain gingerols and shogaols, which are known to be effective in reducing nausea and vomiting (Hernawati et al., 2025). Researchers wanted to evaluate the attitudes of pregnant women in the first trimester regarding ginger consumption as a preventative measure and to reduce nausea and vomiting.

METHOD

This study employed a quantitative descriptive approach to explore the views of pregnant women in their first trimester regarding the role of warm ginger drinks in helping to alleviate morning sickness. The study was conducted at the Independent Midwife Practice in Tulungagung, East Java, from April to May 2025, involving 20 pregnant women experiencing morning sickness.

The variables discussed in this study were pregnant women's views on consuming warm ginger drinks. Data were collected through a closed-ended questionnaire using a Likert scale that assessed attitudes based on acceptance, response, appreciation, and responsibility. The population of this study was all pregnant women in their first trimester who visited TPMB Bu Muyati, a total of 20 people per month. The sample was drawn from this population using a non-probability sampling method with a specific quota. Twenty respondents were selected based on specific criteria to represent the population. The variable studied was the attitudes of pregnant women in their first trimester regarding consuming warm ginger drinks to reduce morning sickness at TPMB Bu Muyati. The data were then processed through

editing, coding, scoring, and tabulation. Analysis was conducted descriptively and presented in frequency distribution tables and percentages. This study also addressed ethical aspects, including obtaining informed consent, maintaining anonymity, and maintaining data confidentiality from respondents.

RESULT

Table 1.
Characteristics of Respondents Based on Maternal Age

Maternal Age (years)	f	%
< 20 years	1	5
20–35 years	19	95
> 35 years	0	0

Table 1 shows that out of a total of 20 respondents, almost all of them, namely 19 (95%), were aged 20-35 years.

Table 2.
Characteristics of Respondents Based on Maternal Education Level

Education Level	f	%
Did not complete formal education	0	0
Primary education (Elementary School)	1	5
Secondary education (Junior & Senior High School)	15	75
Higher education (Diploma, Bachelor's, Master's, Doctoral)	4	20

Table 2 shows that The majority of respondents, namely 15 (75%), had secondary education (junior high school - senior high school).

Table 3.
Frequency Distribution of Pregnant Women's Attitudes of ginger consumption

Family Income Level	f	%
Low	18	53
High	16	47

Table 3 shows that that of the 20 respondents, 17 respondents (85%) had a positive attitude and 3 respondents (15%) had a negative attitude.

DISCUSSION

Table 1 Most of the participants in this study were between 20 and 35 years old. The reproductive aging process is often associated with increased life experience and understanding of health, which can improve health literacy for pregnant women. This health literacy is related to mothers' ability to seek, understand, and utilize health information during pregnancy. In Indonesia, access to information plays a crucial role in maternal health behaviors during pregnancy (Putri et al., 2023).

Increased knowledge and access to information encourage more proactive preventative behaviors, such as using ginger to treat morning sickness. Educational programs in Indonesia have shown that information about the benefits of ginger makes pregnant women more likely to consume it as a way to relieve nausea and vomiting. Research has shown that ginger is effective in reducing nausea symptoms during pregnancy, supporting mothers' decision to consume it (Retnaningtyas et al., 2024).

For older pregnant women, antenatal experience and the availability of verified information make them more confident in applying their knowledge. However, age is only one factor; education, access to antenatal care, and health support are also crucial. Researchers found that older mothers tended to be more active in asking for and receiving health advice, indicating a positive attitude towards the use of ginger.

Table 2 The majority of participants, 15 (75%), had a secondary education. Education level influences how well pregnant women can understand health information. Pregnant women with higher education tend to have better knowledge, making them better able to receive and apply information about pregnancy care, including how to manage nausea and vomiting. A good education also makes it easier for pregnant women to access reliable health information sources and be more proactive in seeking information from medical professionals (Lu et al., 2022).

Pregnant women with a good level of education are generally more rational in making health-related decisions and are able to distinguish between myths and facts. They are also more confident in using non-drug therapies, such as ginger. Researchers found that pregnant women with higher education were more open and active in discussing their symptoms. However, education from healthcare professionals is still necessary for all pregnant women to ensure that information about nausea management is properly understood.

Table 3 The majority of participants expressed a positive view of the use of ginger to manage nausea and vomiting during pregnancy, with 85% of pregnant women recognizing ginger as a non-drug treatment. Research indicates that many pregnant women have a sufficient understanding of the efficacy of ginger in alleviating these symptoms (Thomson et al., 2014). Some studies suggest that ginger can play a role in reducing nausea, although high-quality evidence is still limited (Surianti, 2025). Furthermore, regularly consuming a warm ginger drink can reduce nausea and vomiting without causing significant side effects (Oktaviance et al., 2025).

This positive view is influenced by individual experience, recommendations from healthcare professionals, and belief in natural remedies. Research shows that these beliefs are crucial for empowering pregnant women to choose appropriate treatments. Many pregnant women feel more comfortable discussing the use of ginger, based on information they have obtained from various sources. However, ongoing education is needed to ensure the safe and effective use of ginger.

CONCLUSION

Based on the research and discussion that has been carried out, it can be concluded that most pregnant women in their first trimester at TPMB Bu Muyati, Tulungagung, have a positive attitude towards drinking warm ginger tea as a way to reduce nausea and vomiting, also known as morning sickness.

Pregnant women who are in good reproductive health and have higher levels of education are more likely to accept health information, actively search for reliable information sources, and feel more confident in applying non-pharmaceutical treatments, including drinking warm ginger tea to relieve nausea and vomiting.

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