Research Article

Effectiveness of ginger tea on pregnancy induced nausea and emesis among the pregnant women

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Abstract

Introduction: Motherhood is a beautiful and transformative phase in a woman's life; however, pregnancy may be accompanied by physical discomforts, particularly nausea and vomiting during early pregnancy. These symptoms can affect maternal comfort, nutritional intake, daily activities, and overall well-being. Ginger tea, a simple and accessible herbal preparation containing bioactive compounds with potential antiemetic properties, may help relieve these symptoms. Therefore, the present study aims to assess the effectiveness of ginger tea in reducing pregnancy-induced nausea and emesis among pregnant women. Objectives: To assess the severity of pregnancy induced nausea and emesis among pregnant women in selected areas of Maharashtra. To find out the effectiveness of ginger tea on pregnancy induced nausea and emesis among the pregnant women in selected areas of Maharashtra. Methodology: Quantitative evaluative approach applied with Pre experimental one group pre-test and post-test design. Purposive sampling technique used to select 50 pregnant mothers. Results: The findings revealed a reduction in the mean score of pregnancy-induced nausea and emesis from 10.8 in the pre-test to 2.8 in the post-test following the administration of ginger tea, indicating a considerable improvement in the symptoms among pregnant women.

Keywords: Ginger tea, pregnancy, nausea, emesis and pregnant women..

1. Introduction

Motherhood is a beautiful and transformative phase in a woman's life, bringing joy, hope, and new responsibilities. However, pregnancy also involves several physical and emotional changes that may cause discomfort and affect a woman's overall well-being. Among these discomforts, nausea and vomiting are among the most common symptoms experienced during early pregnancy.

Pregnancy-induced nausea and vomiting, commonly known as morning sickness, affect approximately 50–80% of pregnant women, particularly during the first trimester. These symptoms usually begin around the sixth or seventh week of pregnancy, peak between the ninth and thirteenth weeks, and gradually subside in most women. Despite being called morning sickness, nausea and vomiting can occur at any time of the day and may persist beyond the first trimester in some women. When severe or prolonged, these symptoms can interfere with daily activities, food intake, hydration, and maternal comfort.

Although several strategies are used to manage these symptoms, dietary modifications and natural remedies are often considered to provide relief. Ginger, a commonly available herbal ingredient, has received attention for its potential antiemetic properties. It contains bioactive compounds, particularly gingerols and shogaols, which may help alleviate nausea and vomiting by influencing digestive processes. Research suggests that ginger may reduce pregnancy-related nausea and vomiting and may be a useful non-pharmacological option for managing mild symptoms.

Ginger tea is a simple, affordable, and convenient preparation that can be incorporated into daily routines. Its accessibility makes it a potentially useful supportive measure for pregnant women experiencing morning sickness. However, the appropriate quantity and suitability of ginger during pregnancy should be considered, and pregnant women should consult a healthcare professional before using it regularly.

Need for the study:
Pregnancy is a unique and memorable phase in a woman's life; however, it may be accompanied by minor discomforts such as nausea, vomiting, heartburn, constipation, and backache. Among these, nausea and vomiting of pregnancy (NVP), commonly known as morning sickness, are particularly distressing and can interfere with a woman's daily activities, nutritional status, and overall well-being. Appropriate antenatal care and effective management of these symptoms are essential to promote maternal comfort and healthy pregnancy outcomes.

According to WHO data, the global total fertility rate was 2.3 births per woman, while India's rate was approximately 2.1 during 2021–2022. UNICEF data indicate that antenatal care coverage in India reached 86% during 2019–2021, highlighting the importance of strengthening maternal healthcare services.

A population-based cross-sectional study conducted by Heitmann K. (2017) in Norway involving 712 women reported that nausea and vomiting significantly affected quality of life and daily functioning. The adverse effects increased with symptom severity, and some women with severe symptoms considered terminating their pregnancy or avoiding future pregnancies. These findings emphasize that pregnancy-related nausea and vomiting should not be overlooked as merely routine discomforts.

Ginger has attracted attention as a potential natural remedy because its bioactive compounds, particularly gingerol and shogaol, are believed to possess anti-nausea properties and support gastrointestinal motility. A study involving pregnant women demonstrated that powdered ginger was associated with a significant reduction in nausea and vomiting symptoms. However, persistent and inadequately managed symptoms may contribute to dehydration, nutritional deficiencies, psychological distress, and, in severe cases, hyperemesis gravidarum. Considering the physical and emotional burden of pregnancy-induced nausea and emesis, there is a need to explore simple, acceptable, and accessible supportive interventions for pregnant women. Ginger tea may offer a practical option, although its effectiveness and safety require appropriate evaluation.
Therefore, the researcher is interested in conducting research to assess the effectiveness of ginger tea in reducing pregnancy-induced nausea and emesis among pregnant women. The study aims to generate evidence regarding its potential usefulness as a supportive intervention to improve maternal comfort and promote a more positive pregnancy experience.

Objectives: To assess the severity of pregnancy induced nausea and emesis among pregnant women in selected areas of Maharashtra. To find out the effectiveness of ginger tea on pregnancy induced nausea and emesis among the pregnant women in selected areas of Maharashtra.

2. Materials And Methods:

Research approach: Quantitative approach. Research design: Pre experimental one group pre-test and post-test design. **Setting**: Selected areas of Maharashtra. **Target population:** Pregnant women with pregnancy induced nausea and emesis. **Sample** Pregnant women with pregnancy induced nausea and emesis who fulfill the inclusion criteria. **Sampling Technique -** Purposive sampling technique. **Sample and sample size**: The sample size decided for the present study was 50 pregnant mothers who meet the inclusion and exclusion criteria. **Variables- Dependent variable:** Pregnancy induced Nausea and emesis among pregnant women. **Independent variable:** Ginger tea. **Demographic variables:** Age, Occupation, Gestational week, Gravida, Dietary Pattern **Inclusion criteria:** Pregnant women; who have Moderate pregnancy induced Nausea and Emesis. Who are willing to participate in study. Who are in 8-14 week of pregnancy. **Exclusion criteria:** Pregnant Women; who are not available during data collection. Who having Hyperemesis. Who are having other obstetric problems. Who are taking ginger supplements. Who are allergic to ginger. **Tool used for the study**: Section I**- S**ocio-demographic data, Section II- Rhodes index of nausea vomiting and retching

Operational definitions:
Ginger tea: In this study it refers to ginger tea made from ginger root. Ginger tea will be prepared by boiling 300ml of water over medium to high heat and then added 500mg crushed fresh ginger root, allowed it to boil for 3-5 minutes. Then removed from heat and strained. Added half teaspoon sugar for taste and serve the mother twice a day after breakfast and after dinner for 4 days. **Pregnancy induced nausea and emesis: I**n this study pregnancy induced nausea refers to the sense of discomfort in the gastrointestinal tract that come with an feel to vomit and emesis refers to the

vigorous expulsion of gastric content through the mouth experienced by women during pregnancy. **Pregnant Women:** In this study pregnant women refer to women who have conceived and in gestational week of 8-14.
Hypothesis: - H0- There will be no significant difference between pre-test and post-test score in pregnancy induced nausea and emesis among pregnant women in selected areas of Maharashtra.

3. Results:

Table 1: Frequency & percentage distribution of socio-demographic data of pregnantmothers

Socio-demographic variable	*Frequency*	*Percentage*
Age		
20-25 Years	30	60%
26-31 Years	15	30%
Above 31 Years	05	10%
Occupation		
House Wife	35	70%
Daily wedge worker	08	16%
Service	07	14%
Gestational Weeks		
8-11 weeks	34	68%
12-14 weeks	16	32%
Gravida		
Primigravida	28	56%
Multigravida	22	44%
Dietary pattern		
Vegetarian	07	14%
Non Vegetarian	43	86%

In age in years majority 30(60%) of subjects were in age group of 20-25 years, 35(70%) of subjects were housewives, 34(68%) of subjects were 8-11weeks of pregnancy, 28(56%) were primigravida, and 43(86%) were non vegetarians,

Table *2:* Frequency and percentage of severity of pregnancy induced nausea and emesis among pregnant women in Pre-test and Post-test n=50

S. No	Severity of Nausea and emesis	Pre-test		Post-test	
		Frequency	Percentage	Frequency	Percentage
1.	No Symptoms	00	0%	25	50%
2.	Mild Symptoms	16	32%	25	50%
3	Moderate Symptoms	34	68%	-	-

The above table indicates that, during the pre-test, 16 (32%) pregnant women experienced mild nausea and emesis, while the majority, 34 (68%), experienced moderate symptoms. None of the participants were free from symptoms. However, following the administration of ginger tea, the post-test findings revealed that 25 (50%) pregnant women had no symptoms, while the remaining 25 (50%) experienced mild nausea and emesis. Notably, none of the participants reported moderate symptoms in the post-test, indicating a marked improvement in pregnancy-induced nausea and emesis.

Table 3 : Effectiveness of ginger tea on pregnancy induced nausea and emesis in among pregnant women after intervention n=50

Severity Score					
Test	**Mean**	**SD**	**Median**	**Paired t-test**	**Df**
Pre-test	10.8	3.01	10	32.11	49
Post-test	2.18	2.55	01		

*significant when p<0.05

The above table illustrates the effectiveness of ginger tea in reducing pregnancy-induced nausea and emesis among pregnant women. The mean symptom score decreased considerably from 10.8 in the pre-test to 2.8 in the post-test following the administration of ginger tea. Similarly, the standard deviation decreased from 3.1 to 2.55, while the median score reduced from 10 to 1. The calculated paired t-value was 32.11, which was greater than the table value at the 0.05 level of significance. This indicates a statistically significant reduction in nausea and emesis symptoms, demonstrating that ginger tea was effective in reducing pregnancy-induced nausea and emesis among pregnant women.

4. Discussion:

The first objective was to assess the severity of pregnancy induced nausea and emesis among pregnant women in selected area of Maharashtra.

The pre-test findings revealed that 16 (32%) women experienced mild symptoms, while 34 (68%) experienced moderate symptoms. Following the intervention, 25 (50%) women reported no symptoms, and 25 (50%) experienced mild symptoms. No participants reported moderate symptoms in the post-test assessment, indicating an improvement in symptom severity.

These findings are consistent with the study conducted by Asha P. Dass, Priyadarshini Deodurg, and Sandhiya Rajappan (2017), which evaluated the effectiveness of ginger extract in managing pregnancy-induced nausea and vomiting. The study included 30 pregnant women between 4 and 16 weeks of gestation who received 250 mg of ginger extract three times daily for seven days. Symptom severity was assessed using the Rhodes Index of Nausea and Vomiting. The results demonstrated a statistically significant improvement ($p < 0.005$), suggesting that ginger extract may be beneficial in managing mild to moderate nausea and vomiting during early pregnancy.

The second objective was to find out the effectiveness of ginger tea on pregnancy induced nausea and emesis among the pregnant women in selected areas of Maharashtra.

The findings revealed that ginger tea was effective in reducing pregnancy-induced nausea and emesis among pregnant women in a selected area of Maharashtra. The mean pre-test severity score was 10.8 ± 3.01, which decreased to 2.18 ± 2.55 in the post-test, showing a mean reduction of 8.62. The calculated t-value was 32.11, indicating a statistically significant difference at $p < 0.05$.

These findings are supported by Seema D. Shiradwade and M.S. Regina Satvekar (2019), who conducted a quasi-experimental study to evaluate ginger tea for morning sickness among 60 antenatal mothers. Using purposive sampling,

30 participants each were assigned to the experimental and control groups. The Modified Rhodes Index was used to assess symptom severity. The study reported a significant improvement in the experimental group, supporting the effectiveness of ginger tea in reducing morning sickness.

Similarly, the present study demonstrated a statistically significant difference between pre-test and post-test severity scores, with a calculated t-value of 11.31. Therefore, the null hypothesis stating that there would be no significant difference between pre-test and post-test scores was rejected, indicating that ginger tea significantly reduced pregnancy-induced nausea and emesis among the participants.

Summary:
The current study assessed the effectiveness of ginger tea on pregnancy induced nausea and emesis among pregnant women in selected areas of Maharashtra. The purpose of the study was to assess the effectiveness of ginger tea on pregnancy induced nausea and emesis among pregnant women. The study was conducted on pregnant women having pregnancy induced nausea and emesis in selected areas of Maharashtra. 50 samples was selected for the study those who meet the inclusion criteria. Descriptive and Inferential statics were used to report the findings.

Conclusion:

The current study assessed the effectiveness of ginger tea on pregnancy induced nausea and emesis among pregnant women in selected areas of Maharashtra.

The study revealed that in comparison between pre-test and post-test showed a significant difference in the severity score by administration of ginger tea, thereby concluding that the ginger tea was effective in pregnancy induced nausea and emesis among pregnant women in selected areas of Maharashtra.

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Conflicts of interest:
There are no conflicts of interest. Institute ethical committee clearance obtained.

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