



An Experimental Study to Assess the Effectiveness of Peppermint Tea in Reduction of Morning Sickness among Pregnant Mothers in Selected Rural Areas in district Ambala, Haryana

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ABSTRACT

The present study was conducted to evaluate the method with a quasi-experimental non-equivalent control group design was used for the study to evaluate the effectiveness of peppermint tea on morning sickness among pregnant mothers in selected Rural areas of District Ambala. Non-probability purposive sampling was used for the selection of samples for the study. was used to allocate 60 pregnant mothers. A pre-test was conducted by interview schedule using demographic Performa and morning sickness was measured by using a Numerical rating scale among pregnant mothers in both the groups. The content validity of the tool was evaluated by subject experts. The collected data were analyzed by using descriptive and inferential statistics. The study showed that there was a significant reduction in in level of morning sickness after drinking peppermint tea. Hence it can be concluded that the peppermint tea is effective on morning sickness among pregnant mothers.

Keywords: pregnant mothers, peppermint tea, morning sickness, hyperemesis gravidarum.

Introduction

Though nausea and vomiting is very common during pregnancy, no studies have investigated the impact and alternate remedy of this condition on the women's daily lives in Haryana's population. Morning sickness is a significant health problem as it is associated with nausea and vomiting. The prevalence of morning sickness ranges from 20-40% in urban mothers and 12-17% among rural. Several symptomatic medications are available to treat morning sickness. Peppermint tea can lower morning sickness as effectively as pharmaceutical drugs. A few cups of peppermint tea a day may reduce morning sickness and offer health benefits for people at risk of developing morning sickness.

Objectives of the Study

1. To assess the pre-interventional level of morning sickness among pregnant mothers.
2. To provide peppermint tea among pregnant mothers having morning sickness.
3. To assess the post-interventional level of morning sickness among pregnant mothers.
4. To compare the pre and post-interventional levels of morning sickness among pregnant mothers.
5. To find the association between pre and post-interventional levels of morning sickness among pregnant mothers with the selected socio-demographic variables.

Methodology

An evaluative method with a quasi-experimental non-equivalent control group design was used for the study to evaluate the effectiveness of peppermint tea on morning sickness among pregnant mothers in selected Rural areas of District Ambala. Non-probability purposive sampling was used for the selection of 60 pregnant mothers (30 each for experimental and control groups). A pre-test was conducted by interview schedule using demographic Performa and morning sickness was measured by using a Numerical rating scale among pregnant mothers in both the groups. Demonstration of peppermint tea preparation was done to the experimental group on the same day and for the control group peppermint tea preparation was not demonstrated. The experimental group was asked to drink peppermint tea frequently on sos. Regular home visits have been done to monitor the level of morning sickness. A post-test was done on day 30 by using the same scale in both groups. The collected data were analyzed by using descriptive and inferential statistics.

Findings of the study

Findings related to sample characteristics of pregnant mothers

The baseline data depicts that the participants included in the study belonged to the age group 25-30 years (47.5%). The mean age of both the experimental and control groups was comparable with the mean age being slightly higher in the control group (25.5) as compared to the experimental group (25.33). Most participants in the study belonged to a joint family (71.5%). In both groups, there was a similar distribution with a p-value of 0.774 which was statistically insignificant. Most parturients belonged to the 5000-15000/month income group (31.5%), Most parturients (76.66%) included in the study consumed mixed diet (Vegetarian and Non-Vegetarian), None of the parturients had any history of significant allergies.

Table 1 Frequency and Percentage Distribution of Socio-Demographic Determinants of Pregnant Women

S.No.	Socio-Demographic Determinants	Frequency	Percentage
1.	Age Group		
	a. 18-20 years	0	0
	b. 21-24 years	27	45
	c. 25-30 years	28	47.5
	d. More Than 30	5	12.5
2.	Educational Qualification		
	a. Primary/High School	0	0
	b. Secondary School	0	0
	c. Senior Secondary School	14	23.3
	d. Graduation or more	46	76.6
3.	Gravida		
	a. Nulliparous	18	30
	b. Primiparous	22	36.6
	c. Multiparous	19	31.6
	d. Grand Multiparous	1	1.6
4.	Religion		
	a. Hindu	53	88.3
	b. Sikh	0	0
	c. Muslim	7	11.6
	d. Others	0	0
5.	Trimester of Pregnancy		
	a. First	56	93.3
	b. Second	4	6.6
	c. Third	0	0
6.	Family Type		
	a. Nuclear Family	43	71.6
	b. Joint Family	17	28.3
	c. Extended Family	0	0
7.	Family Income		
	a. Less than 5000	13	21.6
	b. 5000-15000	19	31.6
	c. 15000-25000	18	30
	d. More than 25000	10	16.6
8.	Area of Residence		
	a. Urban Area	0	0
	b. Sub-Urban Area	0	0
	c. Rural Area	30	100
	d. Remote Area	0	0
9.	History of Allergies		
	a. Yes	0	0
	b. No	60	100
10.	Current or Past Medical Illness		
	a. Diabetes	0	0
	b. Hypertension	0	0
	c. Hypothyroid	0	0
	d. No illness	60	100

Table 2: Key for assessment score for the severity of morning sickness

Severity	Nausea	Vomiting	Retching	Scoring
Not at all	No Nausea	No Vomiting	No Retching	1
Mild	1hour a day	1-2 times	1-2 times	2
Moderate	2-3hours a day	3-4 times	3-4 times	3
Severe	4-6hours a day	5-6 times	5-6 times	4
Very Severe	More than 6 hours	More than 6 times	More than 6 times	5

Table 2: Pre-Test Comparison between experimental group and control group

Experimental Parameters	Experimental Group		Control Group		t	P-value
	Mean	SD	Mean	SD		
Nausea Episodes	3.60	0.89	3.67	0.84	-0.297	0.768
Vomiting	3.30	0.75	3.23	0.82	0.329	0.743
Retching	3.43	0.90	3.47	0.82	-0.150	0.881
Frequency of Medication	2.73	0.87	2.67	0.71	0.325	0.746
Knowledge about Peppermint Tea	1.70	0.53	1.83	0.75	-0.795	0.430
Uses of Peppermint Tea	1.50	0.57	1.60	0.62	-0.648	0.519
Effectiveness of peppermint Tea as per patient	1.73	0.91	1.73	0.91	0.000	1.000
Will you recommend using peppermint tea?	1.17	0.38	1.17	0.38	0.000	1.000

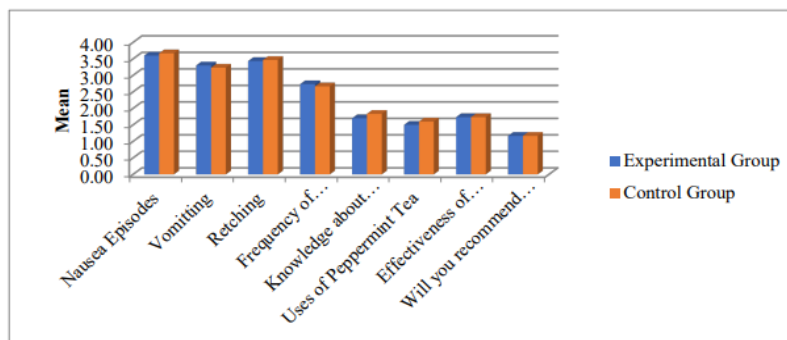


Figure 1: Pre-test comparison experimental group and control group

Table 3: Post-test comparison experimental group and control group

Experimental Parameters	Experimental Group		Control Group		t	p-value
	Mean	SD	Mean	SD		
Nausea Episodes	2.40	0.56	3.60	0.72	-7.165	0.000
Vomiting	2.00	0.59	3.27	0.58	-8.382	0.000
Retching	1.70	0.53	3.47	0.78	-10.266	0.000
Frequency of Medication	1.67	0.55	2.80	0.76	-6.624	0.000
Knowledge about Peppermint Tea	2.70	0.60	1.83	0.75	4.969	0.000
Uses of Peppermint Tea	2.57	0.57	1.60	0.62	6.287	0.000
Effectiveness of peppermint Tea as per patient	1.43	0.68	1.73	0.91	-1.450	0.152
Will you recommend using peppermint tea?	1.13	0.35	1.17	0.38	-0.356	0.723

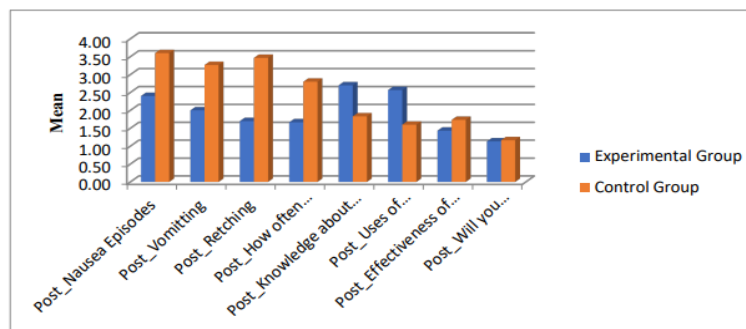


Figure 2: Post-test comparison experimental group and control group

Table 4: Reduction in Pregnancy-Unique Quantification of Emesis (PUQE) Score of Pre-Test to Post Test

Reduction in PUQE Score from Pre-Test to Post-Test	Experimental Group		Control Group		Z	p-value
	Mean	SD	Mean	SD		
		3.57	2.28	-0.10	1.77	6.951

DISCUSSION

Current study depict that most of the pregnant mothers belonged to the age group 25-30 years(47.5%). The mean age of both the experimental and control groups was comparable with the mean age being slightly higher in the control group (25.5) as compared to the experimental group (25.33). Most participants in the study belonged to a joint family (71.5%). In both groups, there was a similar distribution with a p-value of 0.774 which was statistically insignificant. Most parturients belonged to the 5000-15000/month income group (31.5%), Most parturients (76.66%) included in the study consumed mixed diet (Vegetarian and Non-Vegetarian), None of the parturients had any history of significant allergies.

Jennings LK and Mahdy H, et.al. (2021) conducted an experimental study about Hyperemesis Beliefs scale (HBS), a new instrument for assessing patient perception factors of Hyperemesis Gravidarum (HG) that influence reported patient satisfaction with medical care. The findings revealed that exploratory factors analyse of patient and physician versions of the hyperemesis beliefs scale demonstrated broad support for the hypothesized factor structure. First, the patient items exhibited two casual factors (general and personal), whereas the physician items showed only a single casual factor. Second, in the patient version, items assessing the impact of hyperemesis gravidarum on the baby's health loaded separately from the rest of the items in the HBS, whereas the analyses of the corresponding physician items indicated that the baby items loaded well on the degree of seriousness factor.

Limitations of study

- The study will be limited to those who are living in the selected rural areas of district Ambala, Haryana.
- Pregnant mothers included are those who are willing to participate in the study.
- Pregnant mothers who are available at the time of data collection.
- The study does not include pregnant mothers with co-morbidities.

Conclusion

The study showed that there was a significant reduction in in level of morning sickness after drinking peppermint tea. Hence it can be concluded that the peppermint tea is effective on morning sickness among pregnant mothers.

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