

EVALUATE THE EFFECTIVENESS OF PEPPERMINT TEA ON MORNING SICKNESS AMONG PREGNANT MOTHERS IN SELECTED AREAS OF WAGHODIA

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DOI: 10.47750/pnr.2022.13.S01.135

Abstract

Background of the study: The severe form of morning sickness that occurs during pregnancy has a negative impact on the mother's health and/or renders her incapable of carrying out daily tasks. Long used as a remedy for colds, headaches, nausea, and heartburn, peppermint has a number of other uses as well.

Aim: To determine the prevalence of morning sickness and analyse the effectiveness of peppermint tea.

Materials and Methods: A quantitative approach and quasi-experimental research design was implied among sixty pregnant mothers (experimental group n=30, control group n= 30), who were selected through equivalent purposive sampling technique. Data were collected by using demographic Performa and Morning sickness was measured by using the PUQE (Pregnancy Unique Quantification of Emesis and Nausea) score index. Analysis and interpretation of data were done by using descriptive and inferential statistics.

Results: The difference between pre-test and post-test scores was tested by using paired t test with obtained t value ($t=4.257$, $df=29$, $p=0.001$). Findings revealed that peppermint tea was effective in reducing the morning sickness among pregnant mothers in experimental group. In experimental group post-test mean score was 5.60 ± 1.905 and in control group mean score was 7.23 ± 2.269 with mean difference of 1.63 with obtained t value ($t=3.019$, $df=58$, $p=0.363$).

Conclusion: According to the findings of this study, Peppermint was found to be useful in alleviating morning sickness in pregnant women.

Keywords: Effectiveness, Pregnant mothers, Peppermint tea, Morning sickness.

INTRODUCTION

One or more offspring grow inside of a woman during pregnancy, sometimes referred to as gestation. [1] Early pregnancy symptoms and indicators include missed periods, aching breasts, nausea and vomiting, hunger, and frequent urination. [2]

Pregnancy outcomes are enhanced with antenatal care. Prenatal care may involve taking extra folic acid, abstaining from drugs, alcohol, and cigarettes, exercising regularly, getting blood tests, and getting regular physicals. High blood pressure problems, gestational diabetes, iron deficiency anaemia, and severe nausea and vomiting are a few examples of pregnancy difficulties. [2]

Pregnancy symptoms that include nausea or vomiting are referred to as morning sickness or nausea and vomiting of pregnancy (NVP). Contrary to what the term suggests, nausea or vomiting can happen at any time of the day. The first indication of pregnancy often appears between the 4th and 16th week of pregnancy. After the 20th week of pregnancy, 10% of women still experience symptoms. Weight loss results from extreme form of nausea and vomiting, which termed as hyperemesis gravidarum. Morning sickness may be caused by a changing level of the hormone human chorionic gonadotrophin, while its specific cause is unknown. Abdominal pain, fever, or headaches are typically not symptoms of morning sickness. [2]

Morning sickness is a severe form of pregnancy vomiting that has a negative impact on the mother's health and/or renders her incapable of carrying out daily tasks. 70-80% of expectant mothers will have nausea, and 40-50 % will vomit. While 2% of these women will endure their morning sickness till the baby is born, 20% of women will have it for a longer period of time. Teenagers, women over 35, obese women, non-smokers, or women with many pregnancies appear to have a higher frequency of the condition. [4]

The leaf and oil from the peppermint plant are used in medicine. For centuries, people have used peppermint to alleviate common medical symptoms like nausea, indigestion, colds, and migraines. In addition to the popular recommendation for pregnant women to nibble on peppermint candies, peppermint tea also relieves morning sickness-related nausea. [5]

MATERIALS AND METHODS

A quantitative approach and quasi-experimental research design was implied among sixty pregnant mothers (experimental group n=30, control group n= 30), who were selected through equivalent purposive sampling technique to evaluate the effectiveness of peppermint tea on morning sickness among pregnant mothers of experimental group. For seven days, the experimental group was given 150 ml of peppermint tea per day. Data were collected by using demographic data sheet and Morning sickness was measured by using the PUQE (Pregnancy Unique Quantification of Emesis and Nausea) score index instrument among pregnant mothers in Waghodia. Pregnant mothers who were having morning sickness and willing to participate were included in the study. Mothers who were having hyperemesis gravidarum and cannot tolerate the smell of peppermint were excluded from the study. Data analysis was done by using 25th version of SPSS (Statistical Package for Social Sciences) software.

RESULTS

Table 1: Frequency and percentage distribution of the demographic variables of pregnant mothers in Experimental and control Group.

n=60

Demographic variables		Experimental Group (n=30)		Control Group (n=30)	
		f	%	f	%
Age in years	20-25 years	15	50	19	63.3
	26-30 years	11	36.7	9	30
	31-35 years	4	13.3	2	6.7
Religion	Hindu	23	76.6	26	86.7
	Christian	2	6.7	1	3.3
	Muslim	5	16.7	3	10
Gravida	Primigravida	19	63.3	21	70
	Multigravida	11	36.7	9	30
Gestational age in weeks	< 10	4	13.3	2	6.7
	11-15	8	26.7	11	36.7
	16-20	18	60	17	56.6
Type of family	Nuclear	8	26.7	11	36.7
	Joint	12	40	15	50
	Extended	10	33.3	4	13.3
Type of diet	Vegetarian	19	63.3	17	56.6
	Non – veg	2	6.7	2	6.7
	Mixed	9	30	11	36.7
Alternative therapies used in prevention of morning sickness	Yes	6	20	3	10
	No	24	80	27	90

A total of 60 pregnant mothers were studied, in experimental group majority (50%) were in 20-25 years of age and in control group majority (63.3%) were in 20-25 years of age.

Regarding religion of pregnant mothers, in experimental group maximum (76.6%) belongs to hindu, in control group maximum (86.7%) belongs to hindu.

With regard to gravida of pregnant mothers, in experimental group (63.3%) were primigravida mothers and (36.7%) were multigravida mothers. In control group (70%) were primigravida mothers and (30%) were multigravida mothers.

According to gestational age in weeks of pregnant mothers, in experimental group majority (60%) were in 16-10 weeks of gestation and in control group majority (56.6%) were in 16-10 weeks of gestation.

Regarding type of family of pregnant mothers, in experimental group maximum (40%) were living in joint family and in control group maximum (50%) were living in joint family.

With regard to type of diet of pregnant mothers, in experimental group majority (63.3%) were vegetarian and in control group majority (56.6%) were vegetarian.

According to alternative therapies used in prevention of morning sickness of pregnant mothers, in experimental group maximum (80%) don't use and in control group maximum (90%) don't use.

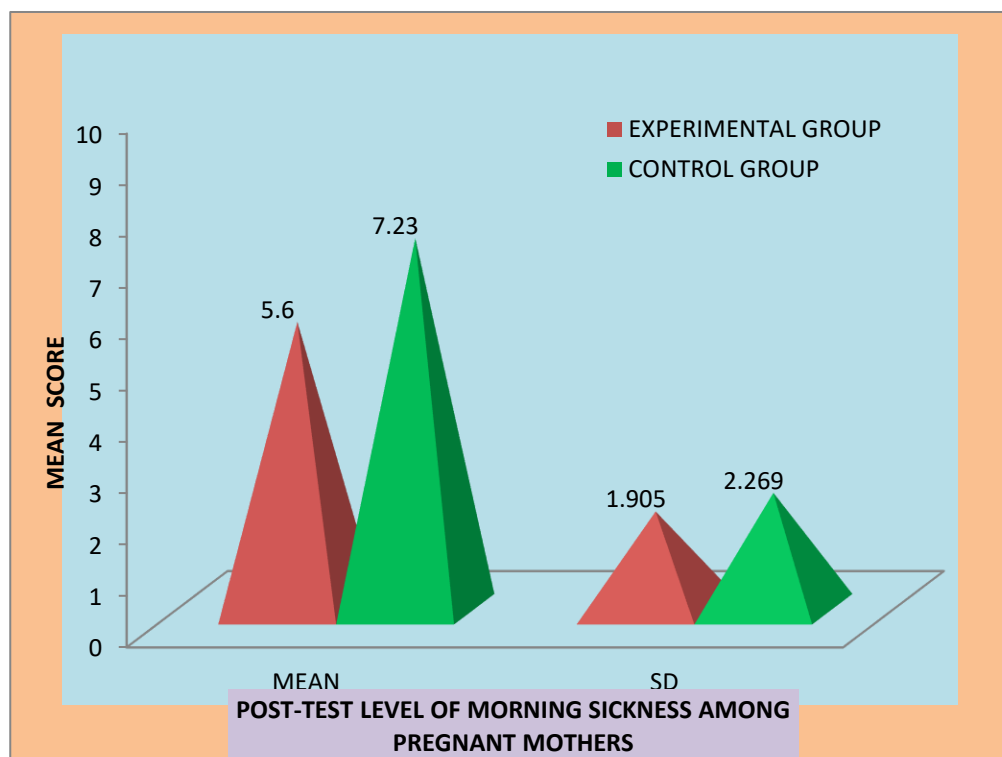


Fig 1: Pyramidal graph illustrates the Mean and SD of post-test level of morning sickness among pregnant mothers in experimental group and control group.

Data presented in the pyramidal graph -1 illustrates the comparison of post-test level of morning sickness of both groups, which was tested using unpaired t test. In experimental group post-test mean score was 5.60 ± 1.905 and in control group mean score was 7.23 ± 2.269 with mean difference of 1.63 with obtained t value ($t=3.019$, $df=58$, $p=0.363$) was statistically highly significant at $p<0.05$ level of significance. Findings revealed that peppermint tea was effective in reducing the morning sickness among pregnant mothers in experimental group as compared to control group.

Table 2: Association between pre-test level of morning sickness among pregnant mothers with selected demographic variables in experimental group.

n=30

Demographic variables		Pre-test level of morning sickness			χ^2 value	df	p value
		Mild	Moderate	Severe			
Age in years	20-25 years	4	10	1	5.045	4	0.283 ^{NS}
	26-30 years	7	3	1			
	31-35 years	1	3	0			
Religion	Hindu	10	11	2	2.030	4	0.730 ^{NS}
	Christian	1	1	0			
	Muslim	1	4	0			
Gravida	Primigravida	4	13	2	8.020	2	0.018*
	Multigravida	8	3	0			
Gestational age in weeks	< 10	2	1	1	5.009	4	0.286 ^{NS}
	11-15	2	5	1			
	16-20	8	10	0			
Type of family	Nuclear	3	4	1	1.271	4	0.866 ^{NS}
	Joint	5	6	1			
	Extended	4	6	0			
Type of diet	Vegetarian	8	9	2	2.975	4	0.562 ^{NS}
	Non – veg	0	2	0			
	Mixed	4	5	0			
Alternative therapies used	Yes	3	3	0	0.703	2	0.704 ^{NS}
	No	9	13	2			

* Significant at 0.018 level

Table 2 depicts the association between pre-test level of morning sickness among pregnant mothers with selected demographic variables in experimental group which was tested by using chi-square test. Result showed that gravida of pregnant mothers was found statistically significant association at $p < 0.05$ level.

DISCUSSION

This study intends to assess the impact of peppermint tea on morning sickness among pregnant mothers in selected areas of Waghodia. The discussion was done in accordance with objectives of the study.

The first objective of the study was to assess the level of morning sickness among pregnant mothers.

Results showed that in experimental group pre-test majority (53.3%) had moderate morning sickness, (40%) had mild morning sickness and (6.7%) had severe morning sickness while in post-test majority (73.3%) had mild morning sickness and (26.7%) had moderate level of morning sickness. Results in control group revealed that in pre-test majority (60%) had moderate morning sickness, (30%) had mild morning sickness and (10%) had severe morning sickness while in post-test (63.3%) had moderate morning sickness and (36.7%) had mild morning sickness.

Study results were similar conducted by Suyati S et al (2018) conducted a study to evaluate the effect of peppermint on morning sickness among pregnant women revealed that during pretest majority 67% had moderate morning sickness and 33% had mild

morning sickness where as in posttest 74% had mild morning sickness and 26% had moderate morning sickness. [6]

The second objective of the study was to evaluate the effectiveness of peppermint tea on morning sickness among pregnant mothers.

Results showed that in experimental group revealed that mean pre-test score was 7.60 ± 2.673 and post-test mean score was 5.60 ± 1.905 with mean difference of 2.0 with obtained t value ($t=4.257$, $df=29$, $p=0.001$) was statistically highly significant at $p<0.05$. Study findings were congruent with study conducted by Putri S, Isnaini N, Yuviska A (2020) to assess the effect of mint oil on nausea and vomiting among pregnant women. Results showed that pre-test mean score was 17.50 and after being given peppermint tea, mean score was 10.60 with $t=3.452$, $p=0.001$) revealed peppermint was effective to reduce nausea and vomiting in pregnant women. [7]

Results revealed that in experimental group post-test mean score was 5.60 ± 1.905 and in control group mean score was 7.23 ± 2.269 with mean difference of 1.63 with obtained t value ($t=3.019$, $df=58$, $p=0.363$) was statistically highly significant at $p<0.05$ level of significance. Findings revealed that peppermint tea was effective in reducing the morning sickness among pregnant mothers in experimental group as compared to control group. Study results were similar conducted by Wills R et al (2017) to evaluate the effect of peppermint on nausea and vomiting among pregnant women revealed that mean score in experiment group was 3.19 ± 2.02 and in control group was 4.75 ± 2.83 with $t=2.135$ significant at $p<0.05$. [8]

The third objective of the study was to find out the association between pre-test level of morning sickness and selected demographic variables.

Result showed that gravida status of pregnant mothers was found statistically significant association at $p<0.05$ level with pre-test level of morning sickness in experimental group. Study findings were supported by Anderson NA (2016) revealed that parity of the pregnant women was found significant association at $p<0.05$ with morning sickness of pregnant women. [9]

CONCLUSION

Morning sickness is the common problem in the first half of pregnancy. This study results showed that peppermint was effective in reducing the morning sickness among pregnant mothers. The peppermint tea acts as an antispasmodic and reduces the tendency of vomiting, nausea or morning sickness during pregnancy. Study suggest that peppermint can be used as non-pharmacologic intervention or home remedy to prevent morning sickness during pregnancy. Educational or awareness programmes to be implemented to communicate to all pregnant women in clinical setting as well in community areas.

CONSENT AND ETHICAL APPROVAL

Formal permission was obtained from the District Health Officer (D.H.O) and Parul University Institutional Ethics Committee for Human Research (PU-IECHR), the approval number is PUIECHR/ PIMSR/00/ 081734/ 4101, written consent was obtained from each subject after giving assurance of confidentiality before starting the study.

ACKNOWLEDGEMENT

I hereby present my praise and thanks to the Almighty My Sadguru for his abundance of grace and marvellous blessings showered upon me for the completion of this project. My special thanks go to those Pregnant mothers who kindly consented and participated in the study without which part of this work would not have been completed.

CONFLICT OF INTEREST

Authors have declared that no conflict of interest exists in this study.

FUNDING

The research was not funded by any internal or external agency, rather it was personal efforts of the author.

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