

# Complementary Alternative Medicine (CAM) and Nausea and Vomiting during Pregnancy (NVP) across Diverse Demographics: Pilot Data Collection

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## Abstract

**Background:** Research has explored the experiences and prevalence of nausea and vomiting among pregnant women, but much is still unknown about how women choose to treat NVP. The current study applies equity principles in seeking decision-making experiences in using CAM, updating a published dissertation, *Use of Complementary Alternative Medicine to Treat Nausea and Vomiting during Pregnancy across Disparate Demographics and Vulnerable Populations: Application of a Conceptual Equity Framework*. The study explored new and additional pathways for data collection to better understand the demographic population trends and patterns related to choices in using CAM as a treatment option for NVP.

**Methods:** The data was collected for women who have experienced NVP through a Qualtrics survey, posted via the Department of Public and Community Health social media campaign, and shared through Blue Ridge Pregnancy Center and Blue Ridge Medical Center.

**Results:** The pilot sample was made up of 23 participants experiencing NVP. 43% reported to have vomited more than once a day during the first trimester and 71% in the third trimester seldom or never vomited more than once a day. 65% reported never using herbal mixtures to relieve NVP. 91.3% reported using herbal remedies 'sometimes.'

**Conclusions:** Understanding demographic population trends and patterns in decision-making on using CAM as a treatment option for NVP is vital for Public Health programming, health promotion strategies, and sound medical education across different populations. Future research must utilize a robust sample of diverse demographic representatives of women experiencing NVP and the reason behind their choices of CAM. It is imperative to devise means to overcome barriers and challenges of data collection across diverse populations, as the remainder of the posted surveys had their data hacked by bots during the data collection process, resulting in a small sample size of accurate data.

## Introduction

- Nausea and Vomiting during pregnancy (NVP) are common conditions that affect pregnant women. The symptoms of NVP are experienced by 70-80% of pregnant women in the United States.<sup>1</sup>
- NVP occurs mainly in the first trimester but can perpetuate to the third trimester in 23.5% of pregnant women.<sup>2</sup>
- The psychological and physiological levels of stress in pregnant women are adversely impacted by NVP, even in its mild forms, disrupting their daily activities, social function, and work capabilities.<sup>3</sup>
- Complementary Alternative Medicine (CAM) is a potential natural treatment for pregnant women to alleviate symptoms of NVP. The World Health Organization has reported the increased use of traditional and complementary medicine (CAM) as a global trend.<sup>4</sup>
- Complementary Alternative Medicine encompasses various practices, including acupressure, acupuncture, aromatherapy, reflexology, homeopathy, and herbal mixtures.
- Pregnant women across diverse populations seek pathways to relieve NVP, and public health professionals must understand the trends and patterns in their decision-making process.
- This study aims to capture a deeper understanding of the need for education and resources for pregnant women to decrease the incidence of severe NVP through CAM-related efforts.

## Methods

Based on previous literature, a recruitment letter and a quantitative survey were created. The survey was made with the Qualtrics platform and consisted of fifteen demographic questions, thirty-two survey questions, and a list of various Complementary Alternative Medicine (CAM) Treatments inquiring if the participants surveyed used any of the listed CAM Treatments to aid symptoms of Nausea and Vomiting in Pregnancy (NVP).

- Fifteen demographic questions were asked to quantify the background information of participants
- Using the Likert Scale from one to five, participants were asked twenty-eight questions about their experiences with NVP with response options of never, seldom, sometimes, frequently, and always.

An incentive of a \$10 gift card was approved to be given to qualifying participants who requested per request after completing the survey, using grant funding, and participants could also be entered into a drawing for a \$100 Visa card, as outlined in the recruitment letter.

After the recruitment letter and survey were approved by the IRB for dissemination, the recruitment letter and survey were distributed through a social media campaign by the Department of Public and Community Health as well as through the Blue Ridge Medical Center and Blue Ridge Pregnancy Center.

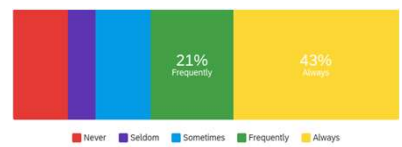
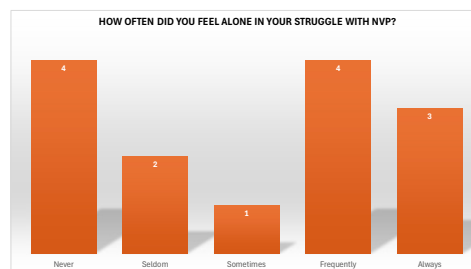
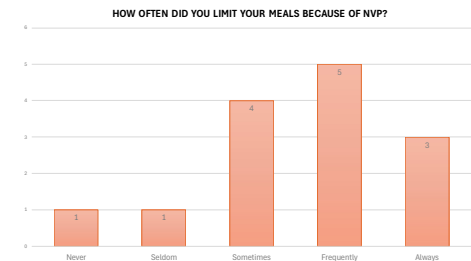
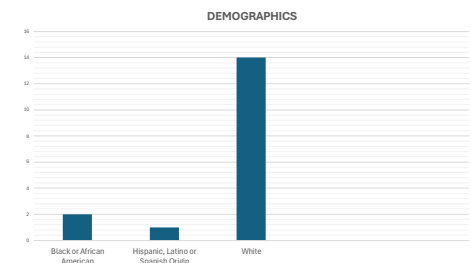
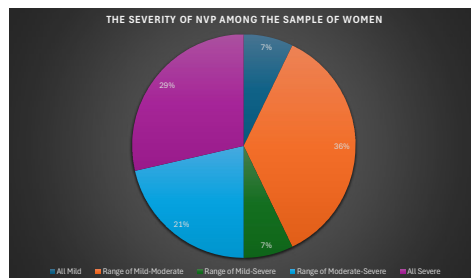


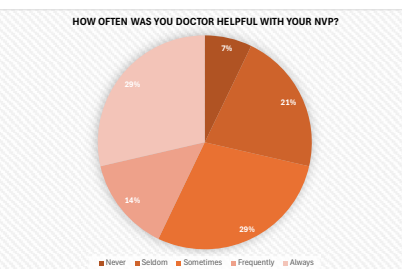
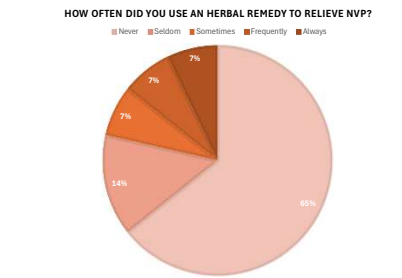
Figure 1. How often did you vomit more than once a day during the first trimester?



Figure 2. How often did you vomit more than once a day during the second trimester?



Figure 3. How often did you vomit more than once a day during the third trimester?



## Results and Conclusion

**Results**  
The pilot data collection produced a sample size of N=23. Some of the more pertinent results from the data collected are shown in the tables provided. Specifically, 43% of women report vomiting more than once a day during the first trimester, and based on other data reported, 71% of women in the third trimester seldom or never vomited more than once a day. Demographically, of the 23 women that completed this portion of the survey, all but three women were reported to be white, while 2 identified as black, and 1 as Hispanic or Latino. Of these women, 65% reported never using an herbal remedy to relieve NVP. All but 2 women report at least sometimes if not frequently, or always limiting meals because of NVP. The questions asking participants if they felt alone in their struggle with NVP and how often they felt supported by their doctor, varied among women.

**Conclusions**  
Our work demonstrates a small, pilot data collection, intended for the future expansion of how to best support women experiencing NVP through CAM methods. The results of the pilot data collection support the potential need for increased community education on safe uses of CAM methods in NVP prevention, as the sample of women, primarily based on a lack of utilization of CAM methods. Furthermore, some women reported feeling alone and unsupported by their doctor, as well as noticing a negative impact on their nutritional and exercise habits, which impact the overall health of the mother and baby. Further investigation of CAM and ways to support women with NVP through education and resources, is necessary to ensure more women are feeling supported and are provided with the proper knowledge to improve their pregnancy experience and support a greater nutritional and mental health status. Limitations and barriers are that not all women fully completed the survey, the survey was eventually hacked creating unsalvageable data, and there was a lack of significant diversity among women. Lastly, to build upon previous work, and expand for the future, it is necessary to capture a larger population as well as greater diversity among the population, to further determine patterns and trends among NVP incidence and CAM utilization.

## Future Work

- More secure data collection methods should be utilized to ensure validity and aid in the prevention of data hacking and corruption.
- Continued data collection applying the core function of Assessment among larger and more diverse groups of women, using the IRB-approved survey, to have more accurate results and additional assessment measures.
- Further research should apply the core function of Equity with a larger sample size that spans across diverse populations.
- The use of culturally intelligent practices combined with data results will assist in the creation of future resources including the development of health education and promotion strategies to assist pregnant women in making informed decisions about the use of CAM in the treatment of NVP.
- The results from continual data collection and analysis, can help shape community prenatal health education programs, to equip women with accurate information regarding CAM remedies to ease the burden of NVP.

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