

# EDUCATION ON GINGER AND PEPPERMINT AS INTERVENTIONS FOR POSTOPERATIVE NAUSEA AND VOMITING (PONV) IN REGISTERED NURSES

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## INTRODUCTION

### Background

- There are countless complications of PONV including aspiration, wound dehiscence, esophageal rupture, electrolyte imbalance, dehydration, and an extended recovery time.
- In the general post-operative stage, 30% of patients vomit and 50 % of patients have nausea. High risk patients may have an increased risk of up to 70-80% for PONV (Koyuncu, O., Urfali, S., Hakimoglu, S., & Tasdogan, A.M. 2020).

### Purpose

- Our purpose is to educate nurses caring for postoperative patients about the benefits of using ginger and peppermint to decrease the incidence of postoperative nausea and vomiting (PONV).

### PICO Question

- Among post-operative care nurses who receive education on peppermint and ginger for PONV compared to those who have not yet received education, is there an improvement in knowledge?



## LITERATURE SEARCH

### Databases

- CINAHL

### Search Parameters:

- Peer-Reviewed; Articles dated between 2013-2020.

### Keywords:

- Peppermint, Postoperative, Ginger, Nausea and Vomiting, Aromatherapy, Alternative Therapy

## CURRENT EVIDENCE

- American Society of PeriAnesthesia Nurses recommends use of both pharmacologic and nonpharmacologic methods to manage PONV (Clifford, 2019).
- In the comparative study on PONV interventions that Kamali et al. (2020) carried out, Ginger had a markedly lower N/V score within the first two hours post procedure than a common drug, dexmedetomidine, given for post-op N/V.
- Patients that used peppermint aromatherapy upon arrival to the PACU experienced a decrease in the severity of their nausea. Some even declined antiemetic medications and solely used the peppermint (Yasui et al., 2019)
- In another study report it was found that 500 mg of oral ginger given one hour before surgery in women who were undergoing laparoscopic cholecystectomy is effective in decreasing severity of PONV (Bameshki et al., 2018).
- In another study, it was found that 67.1% of patients that used ginger aromatherapy and 82.4% of patients that used a combination of ginger, spearmint, peppermint, and cardamom oil noticed a reduction in PONV while only 39.7% of patients that used normal saline and 51.3% of patients that used isopropyl alcohol reported a reduction in PONV (Asay, Olson, Donnelly, & Perlman, 2019).
- Inhaled peppermint and/or ginger essential oil help to reduce nausea and vomiting by decreasing frequency and severity of episodes.

## EDUCATION PLAN AND IMPLEMENTATION

### Learning Objectives

- Comprehend the complications associated with PONV.
- Reflect on current practice recommendations in literature
- Identify ginger and peppermint as ways to treat/manage post-op N/V
- Understand the effects peppermint and ginger have on the body and why they would be contraindicated

### Location and Target Population

- Registered Nursing staff at UC Health West Chester Hospital Post Anesthesia Care Unit
- Mercy Fairfield Hospital Family Birthing Unit

### Implementation

- We disseminated this education via a handout binder on the units and additionally sent out the education PowerPoint via staff email.
- Allowed for self-paced review of materials at convenient times
- Effectiveness of education was evaluated through pre and post surveys.

## OUTCOMES

### Results

- Overall, the nurses that received the education had an improve in scores. Pre-survey scores on statements 1, 3, & 5 show high levels of prior knowledge.
- The statements that had the greatest increase in scores were statements 4 and 6. Both statements pertained to knowledge of using ginger to reduce PONV (oral supplements and aromatherapy).

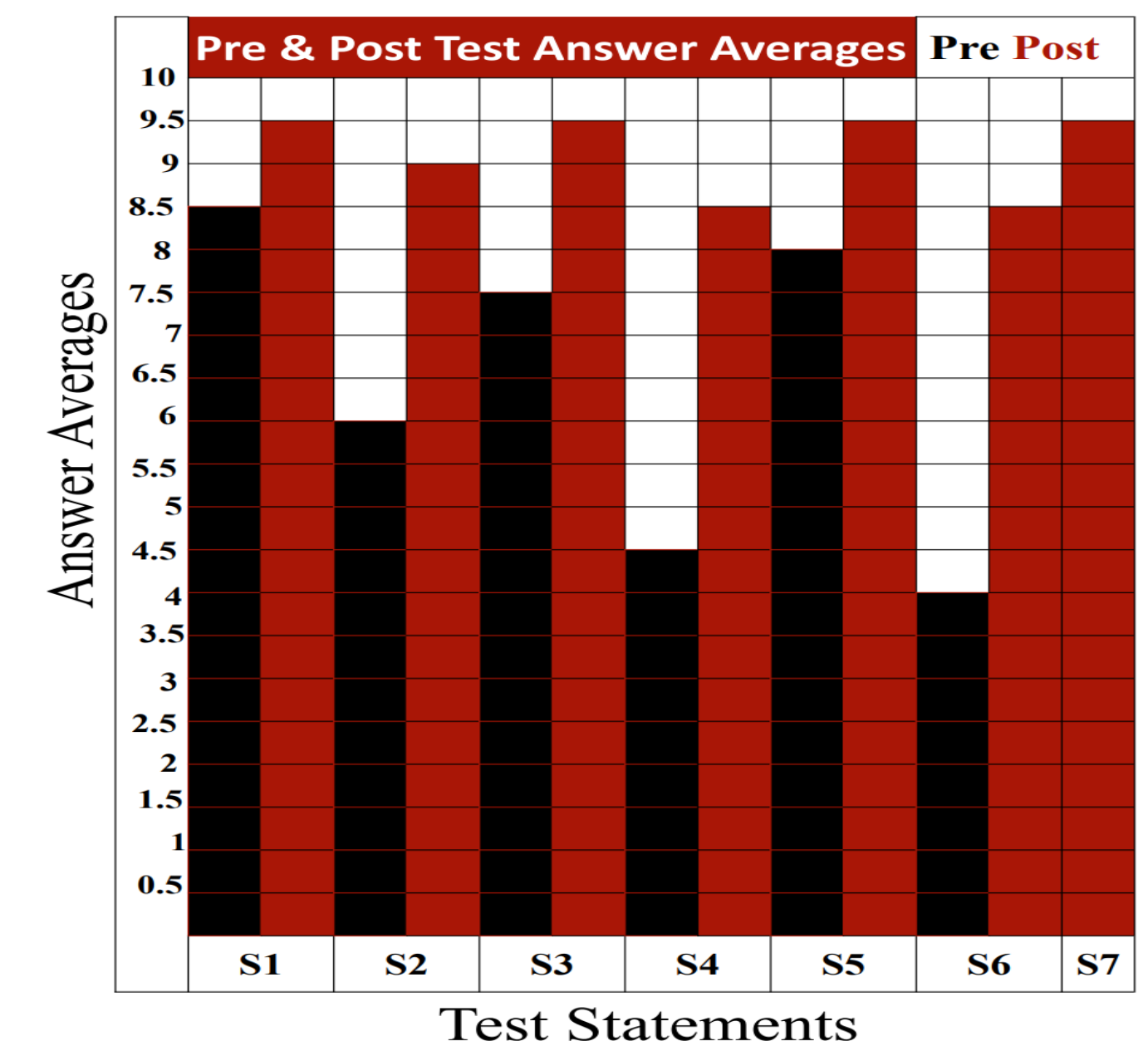
### Lessons Learned

- In-person presentation of education could better facilitate feedback and participation.
- Comparing survey results across units in the future could help identify knowledge gaps in different nurse populations.
- Future education strategies may be focused more specifically on implementing ginger to reduce PONV.

## FEEDBACK

Statements were rated on a scale of 1-10. 1 represents strongly disagree or no knowledge; 10 represents strongly agree or complete knowledge

- 1. I have a clear understanding of the complications that can arise from postoperative nausea and vomiting in my patients.
- 2. I comprehend the current practice recommendations regarding managing PONV with peppermint and ginger.
- 3. I can identify patients at risk for PONV.
- 4. I would identify ginger aromatherapy as a way to reduce PONV.
- 5. I would identify peppermint aromatherapy as a way to reduce PONV.
- 6. I would identify pre-op oral ginger supplements as a way to reduce PONV.
- 7. The information in this presentation was useful to me in my practice as a professional nurse. (Post-test only)



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