



Incorporating Acupressure to Reduce Postoperative Nausea and Vomiting in the Post Anesthesia Care Unit for Patients Undergoing Bariatric Surgery

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Introduction

- Postoperative nausea & vomiting (PONV) is nausea and/or vomiting or retching in the post-anesthesia care unit (PACU) or first 24 hours.
- Over 260,000 bariatric surgeries are performed in the United States annually.
- Up to 80% of patients undergoing a laparoscopic or robotic sleeve gastrectomy or Roux-en-Y gastric bypass experience PONV.
- Patients undergoing bariatric surgery often have many risk factors for PONV, including type of anesthesia, surgical procedure performed, and individual patient risk factors.
- Despite extensive research on risk factors and treatment, PONV continues to impact the postoperative recovery of these patients, leading to prolonged recovery room stays and additional healthcare costs, up to 1.2 billion/year in the US.

Identification of the Problem

- At a 400-bed, non-profit, Magnet-designated community hospital in the mid-Atlantic region, over 600 patients undergo bariatric surgery annually.
- Nursing staff in the PACU identified that these patients frequently reported PONV, a quality indicator measured and reviewed monthly.
- While these patients received pharmacological interventions to prevent PONV, the current standard of care does not include complementary therapies.

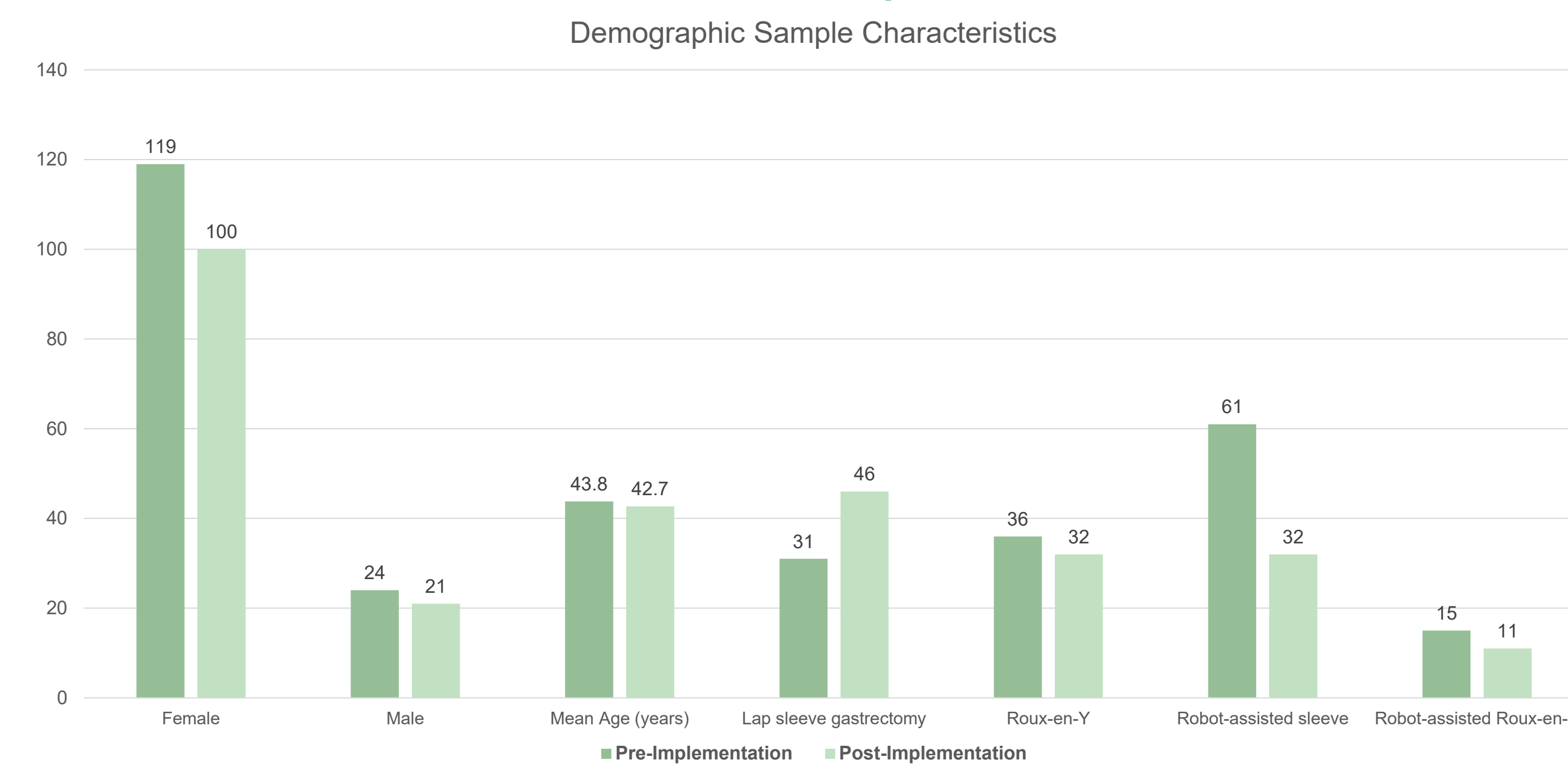


Purpose

The purpose of this project was to implement the evidence-based (EBP) intervention of acupressure during Phase I post anesthesia recovery as part of the comprehensive treatment of PONV for the population having bariatric surgery as supported by a synthesis of the evidence and current practice standards

Methods

- Participants who received the EBP intervention of acupressure were adult patients over 18 years of age undergoing (a) laparoscopic sleeve gastrectomies, (b) laparoscopic Roux-en-Y gastric bypass, (c) robotic-assisted sleeve gastrectomies, or (d) robotic-assisted Roux-en-Y gastric bypass during the 12-week implementation phase of the project from September through December 2024.
- The EBP model was the Johns Hopkins Nursing Evidence-Based Practice Model.
- Demographic and outcome data were gathered from chart reviews for analysis.

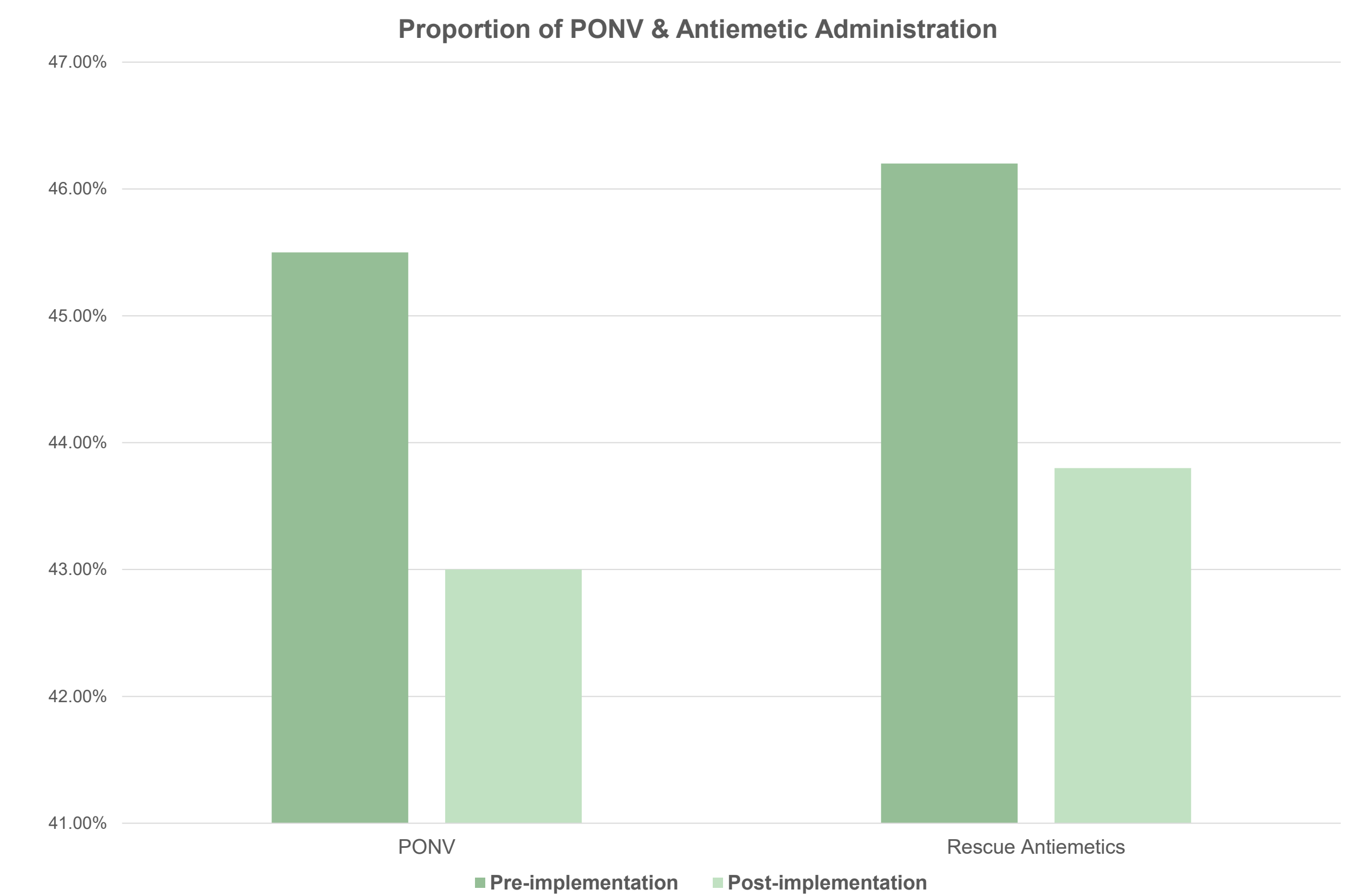


Implications for Nursing

- As supported by research evidence, the implementation of the noninvasive, low-cost acupressure device was clinically significant and offers a nurse-driven, nonpharmacological intervention that is easy to use and document in the PACU setting.
- Continuation of the intervention may demonstrate a statistically significant improvement of PONV and recovery times with a larger sample or if applied earlier in the surgical process.

Outcomes

- The pre- and post-implementation samples were descriptively comparable.
- Of 121 eligible participants, 91.7% received the intervention.
- The proportion of PONV in the pre-implementation group was 45.5% compared to 43% in the post implementation group, which was a small but not a statistically significant difference ($z=-.404$, $p=.686$).
- The mean recovery time for the pre-implementation sample was 116.3 minutes compared to 112.5 minutes, which was decreased but not statistically significant ($p=.579$).
- Clinical significance was identified, which relates to real-life application of findings to improve care and outcomes.



References

