

# Implementing Perioperative Evidence-Based Interventions for OSA: Increasing Risk Awareness, Enhancing Patient Care

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## Purpose

- Obstructive Sleep Apnea (OSA) has been identified as a factor for prolonging PACU stays and contributes to respiratory compromise for patients receiving postoperative opioids.
- This population has an increased risk for adverse respiratory events once discharged.
- The majority of OSA cases are undiagnosed. Perioperative nurses are in a unique position to recognize previously undiagnosed OSA and implement OSA focused postoperative education.

## Objective

- Can increasing nursing knowledge of OSA risks and perioperative nursing interventions optimize patient care by implementing OSA education and OSA postoperative instructions for adult surgical patients with diagnosed and undiagnosed OSA?

## Synthesis of Evidence

- A literature search of CINAHL and PUBMED found 27 articles relating to OSA and surgical outcomes. Three key factors impacting adult patients, with diagnosed and undiagnosed OSA, postoperative outcomes were identified:

### Early Identification:

- Implementation of screening tool to identify patients who are at increased risk

### Staff Nurse Education:

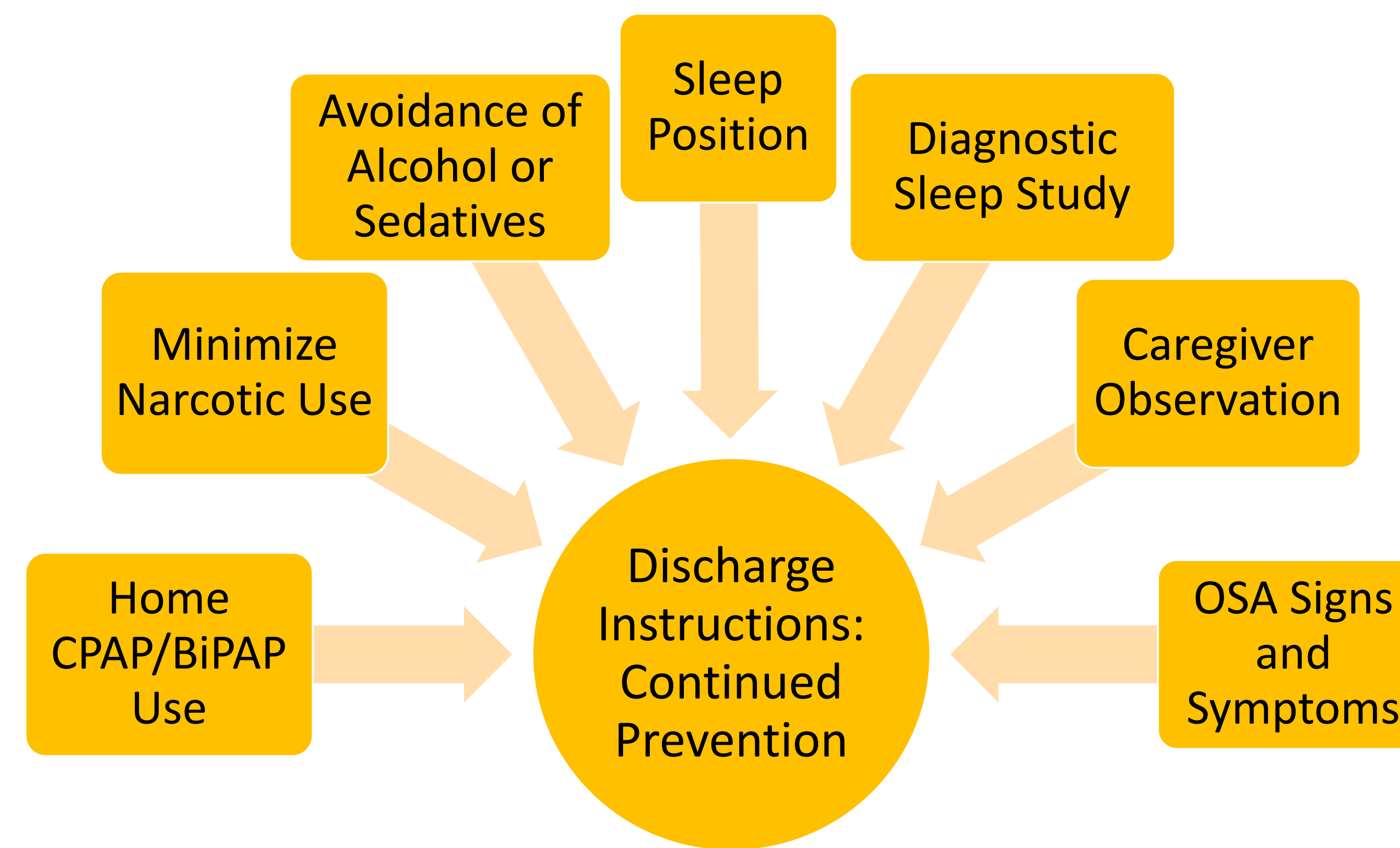
- Mechanisms/physiology of OSA
- Importance of documenting apneic and desaturation episodes
- When to implement postoperative OSA instructions

### Discharge Instructions: Addition of Educational Material

- Signs and symptoms of OSA
- Strategies to improve outcomes after discharge

## Interventions and Process Change

- An OSA screening tool, STOP-BANG, was added to the ASC Status Board to allow for easy identification of at-risk patients preoperatively.
- Multidisciplinary teams created evidence-based OSA discharge instructions for postoperative patients who presented with an OSA diagnosis or a moderate to high risk.
- Formal staff training on the pathophysiology of OSA, capnography, and postoperative risks associated with OSA was completed.
- Exchange of nasal cannula for ETCO2 capable nasal cannula.



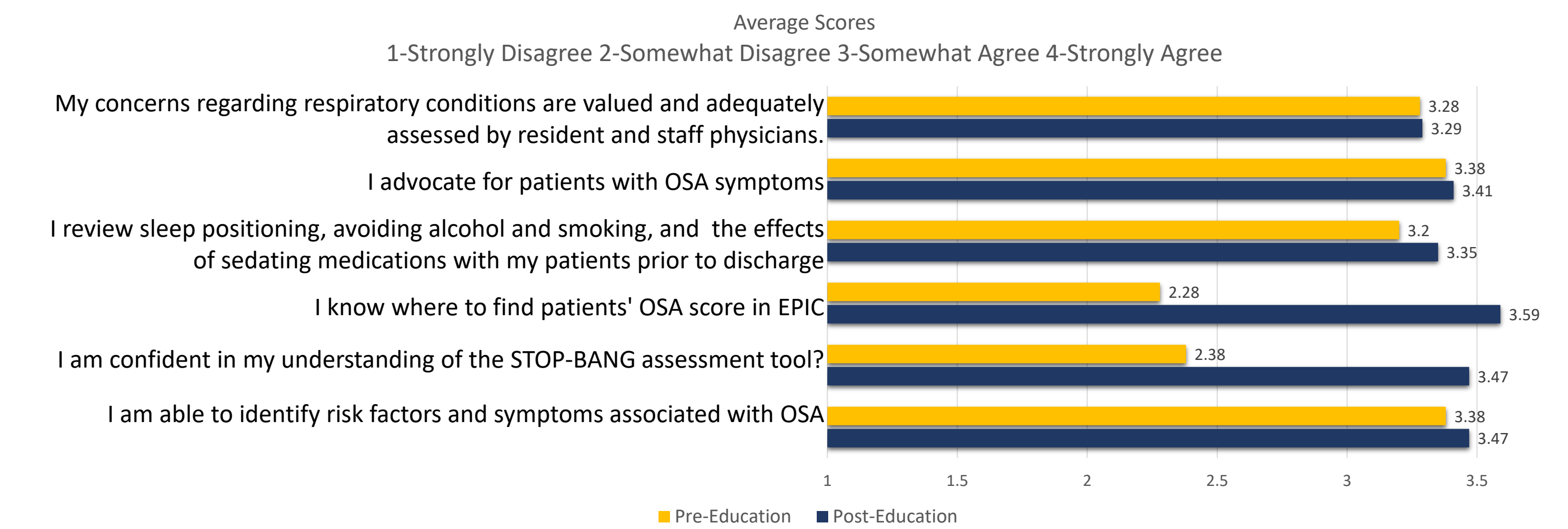
## Outcomes and Discussion

- Increased nurse awareness of:
  - Patients at-risk for or diagnosed with OSA .
  - Compliance of home CPAP or other mandibular positioning device use.
- Post-education chart audits: Areas for continued improvements:
  - Addition of developed education to new RN staff orientation.
  - Educate inpatient units of availability of OSA discharge education: patients admitted to an inpatient unit were not given additional OSA education at discharge due to differing workflows between units.
  - Integrate STOP-BANG assessment tool into paranesthesia RN phone encounter: multidepartment collaboration to ensure preoperative risk assessment completion.
- Desaturation data was thought to be skewed as nurses were unwilling to document low saturations, waiting to document until airway repositioning, deep breathing encouragement, or other intervention provided.

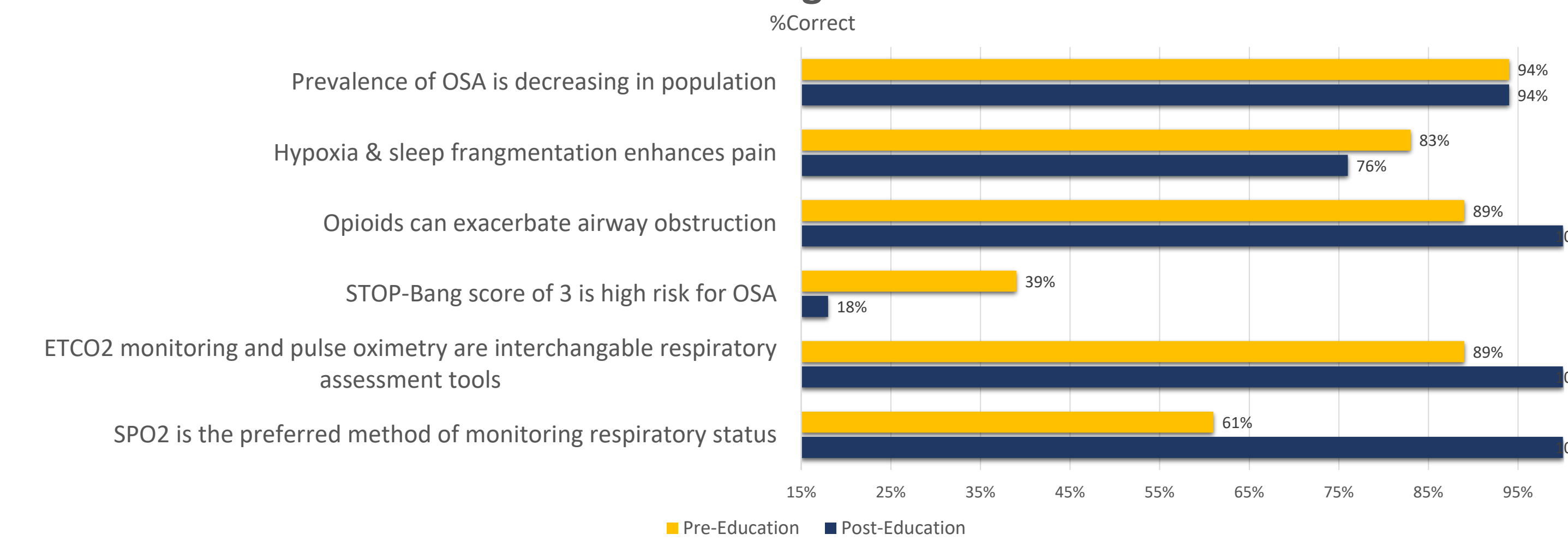
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## Survey Results

### RN Confidence and Clinical Practice Assessment

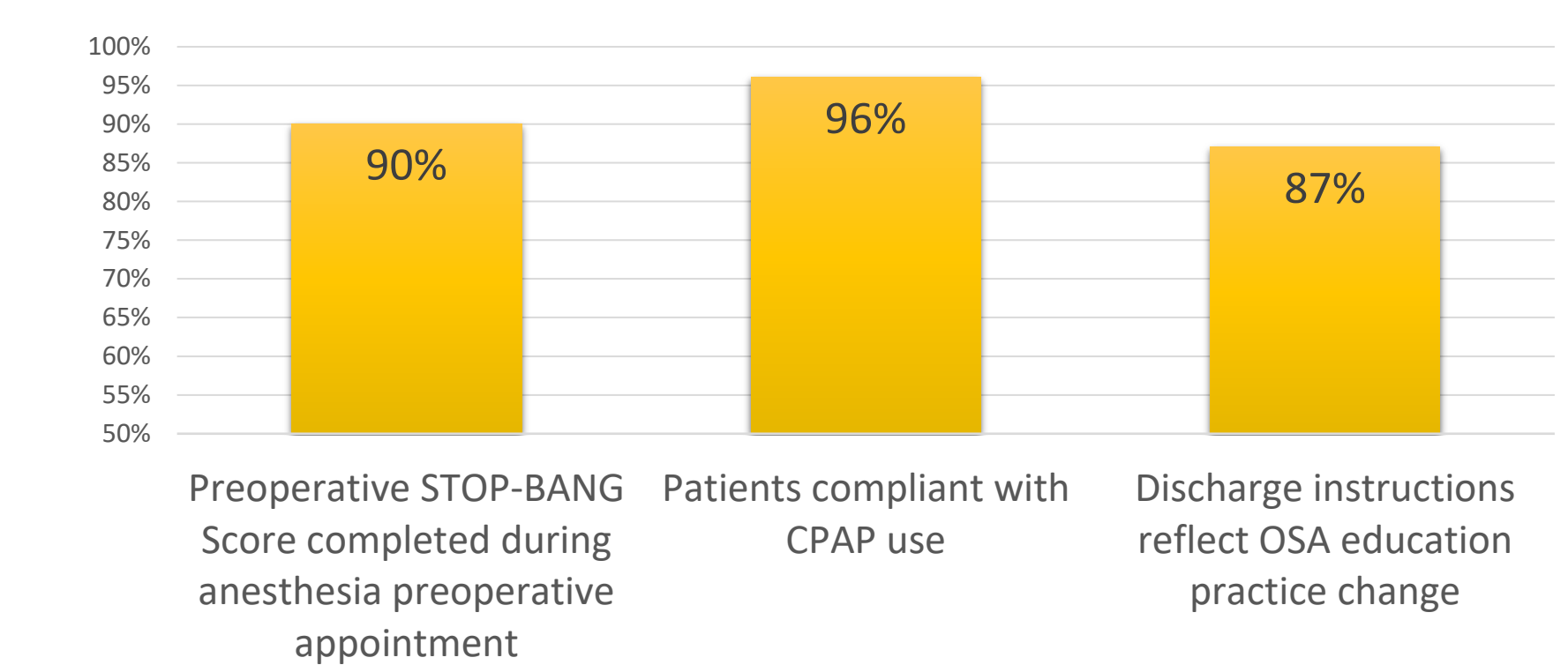


### OSA Knowledge Assessment



## Chart Audit

### Post-Education Chart Audit



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