

# Program Development Initiative to Improve the Quality of Perioperative Healthcare Delivery to Surgical Patients in Recovery from Opioid Use Disorder

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## Problem

- The opioid epidemic has dramatically increased the number of patients in recovery from Opioid Use Disorder (OUD)
- Patients with OUD are at high risk of relapse during the perioperative period, which leads to an unacceptably high risk of overdose and death
- Scientific literature regarding this topic is limited; however, data gathered from case reports and legal actions demonstrate these risks are not uncommon

The problem is most anesthesia providers are unprepared to treat patients in recovery from OUD and are not capable of providing a quality anesthetic without utilizing opioids.

## Purpose

- The primary purpose of this program initiative was to address a significant gap in the perioperative delivery of pain management strategies for patients with OUD by providing a selected population of anesthesia providers with:
- Knowledge about OUD and Opioid-Free Anesthesia (OFA) techniques
  - Guidance with utilizing and implementing the most recent evidence to inspire a change in practice
  - The ability to implement this change through a templated simulation training program that includes preoperative, intraoperative, and postoperative scenarios

## Model/Theory

- The Kaizen continuous improvement model guided project design
- Five-step model: identify a problem, create a solution, test the solution, evaluate the results, standardize the initiative to be adopted

Lewin's Theory of Change guided project implementation as the basis of this theory is learning new techniques, changing attitudes, and implementing a new way of thinking



Simulation Training at Center for Advanced Medical Learning and Simulation

## Methodology

Phase I  
Needs Assessment

116 Florida CRNAs  
Completed Online  
Qualtrics Survey

- Sociodemographic Survey
- 12-Question Knowledge Assessment

Phase II

15 Florida CRNAs  
Attended Simulation Event

- Sociodemographic Survey
- 12-Question Knowledge Assessment
- 16-Question Evidence-Based Practice Beliefs Scale
- 18-Question Evidence-Based Practice Implementation Scale

- Powerpoint Presentation
- Preoperative
  - Intraoperative
  - Postoperative

Simulation Scenario

- Preoperative
  - Debrief for Meaningful Learning
- Intraoperative
  - Debrief for Meaningful Learning
- Postoperative
  - Debrief for Meaningful Learning

- 12-Question Knowledge Assessment
- 16-Question Evidence-Based Practice Beliefs Scale

## Setting

Center for Advanced Medical Learning and Simulation (CMLS)

## Instruments

- Sociodemographic Survey
- 12-Question Knowledge assessment (6 on OUD, 6 on OFA)
  - Created by subject matter experts
- Evidence Based Practice Belief Scale (EBPBS)
  - 16 questions, 1-5 Likert style scale
  - Evaluate the likeliness that the participant would utilize EBP in the delivery of OFA for a patient with OUD
- Evidence Based Practice Implementation Scale (EBPIS)
  - 18 questions, 1-4 Likert style scale
  - Evaluates how often the participant implements EBP in the delivery OFA to patients with OUD
- Debriefing for Meaningful Learning (DML)
  - 11-item rubric identifying critical activities graded on a 5-point Likert style scale

## Intervention

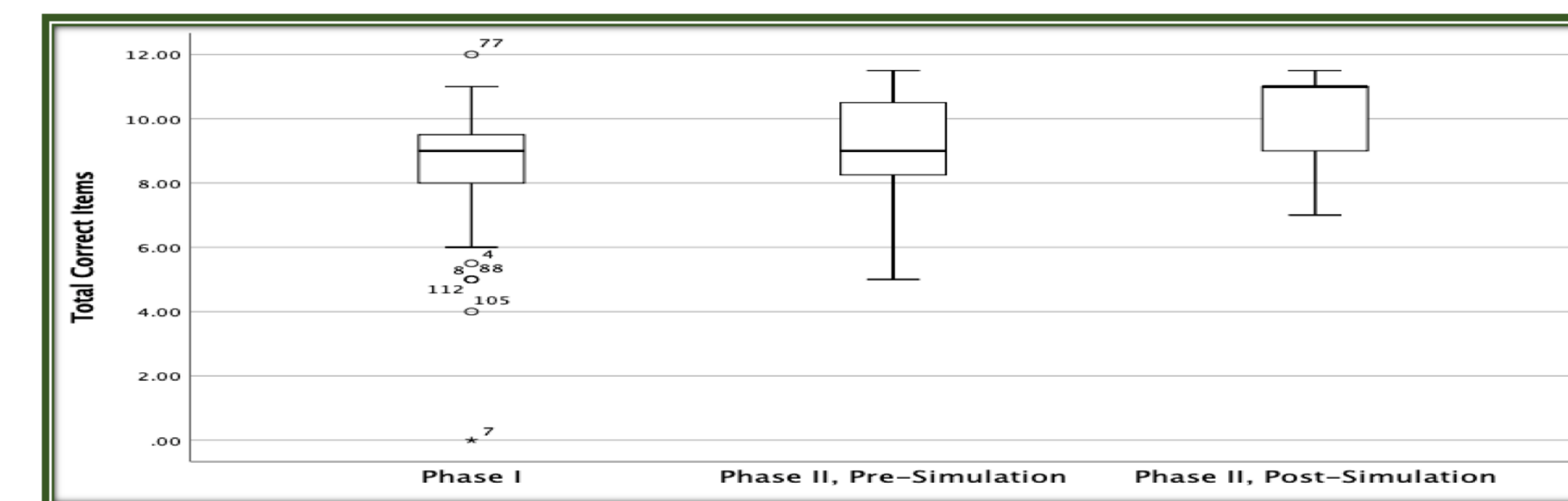
### Phase I

- CRNAs practicing in Florida were recruited using online social-media platforms to fill out an anonymous questionnaire
- Link to knowledge assessment on Qualtrics was included in the post
- Qualtrics link was open from April 7, 2020 until June 7, 2020
- Participants were invited to attend the free, in-person simulation

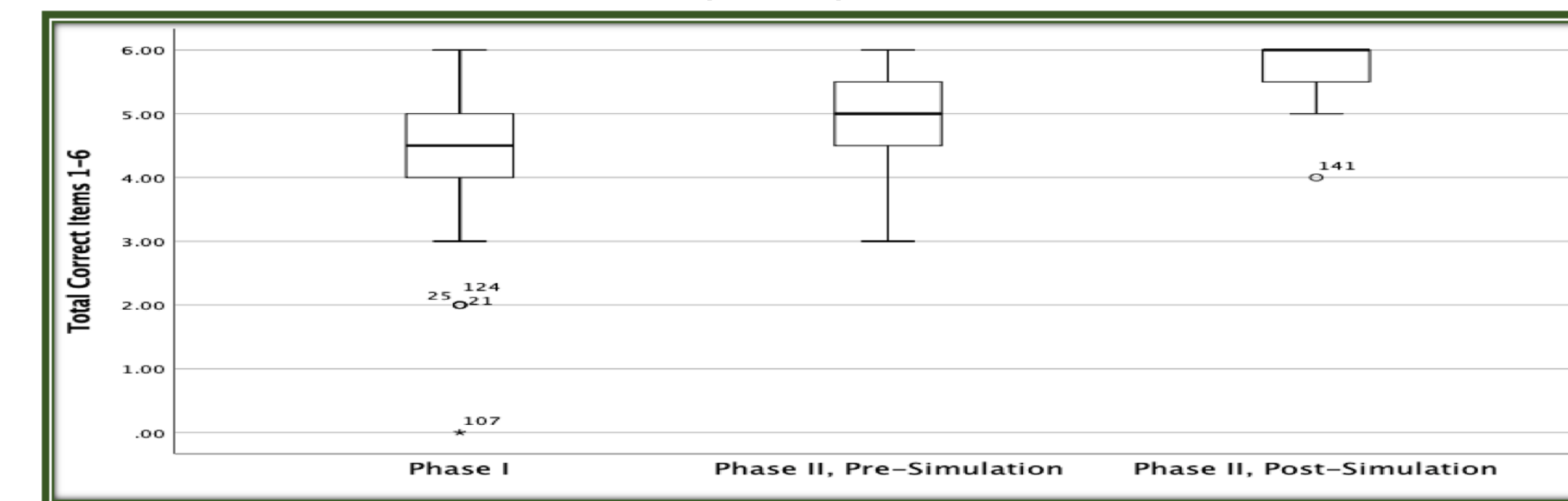
### Phase II

- 1-day in-person simulation event
- Participants completed knowledge assessment, EBPBS, and EBPIS
- Each participant viewed 3 voice-over PowerPoint presentations on surgical pain management for patients with OUD (preoperative, intraoperative, postoperative presentations)
- Attendees then participated in 3 simulation activities that reinforced the knowledge presented in each PowerPoint. A debrief was performed after each simulation
- The knowledge assessment and EBPBS were administered again after all learning activities were completed

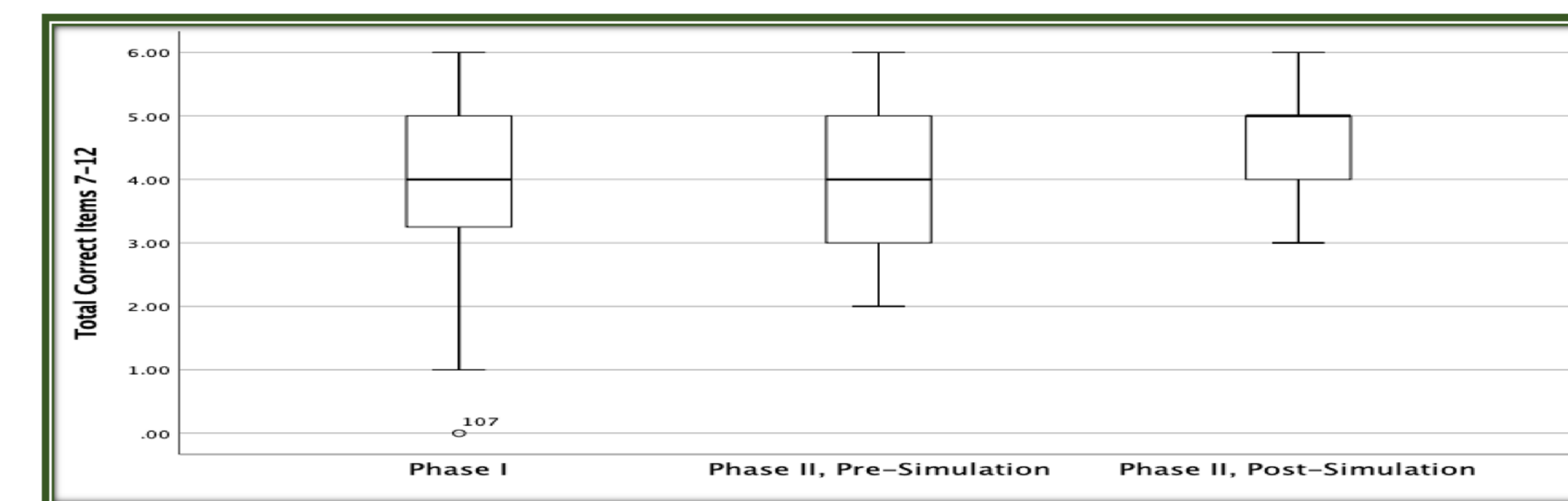
## Results



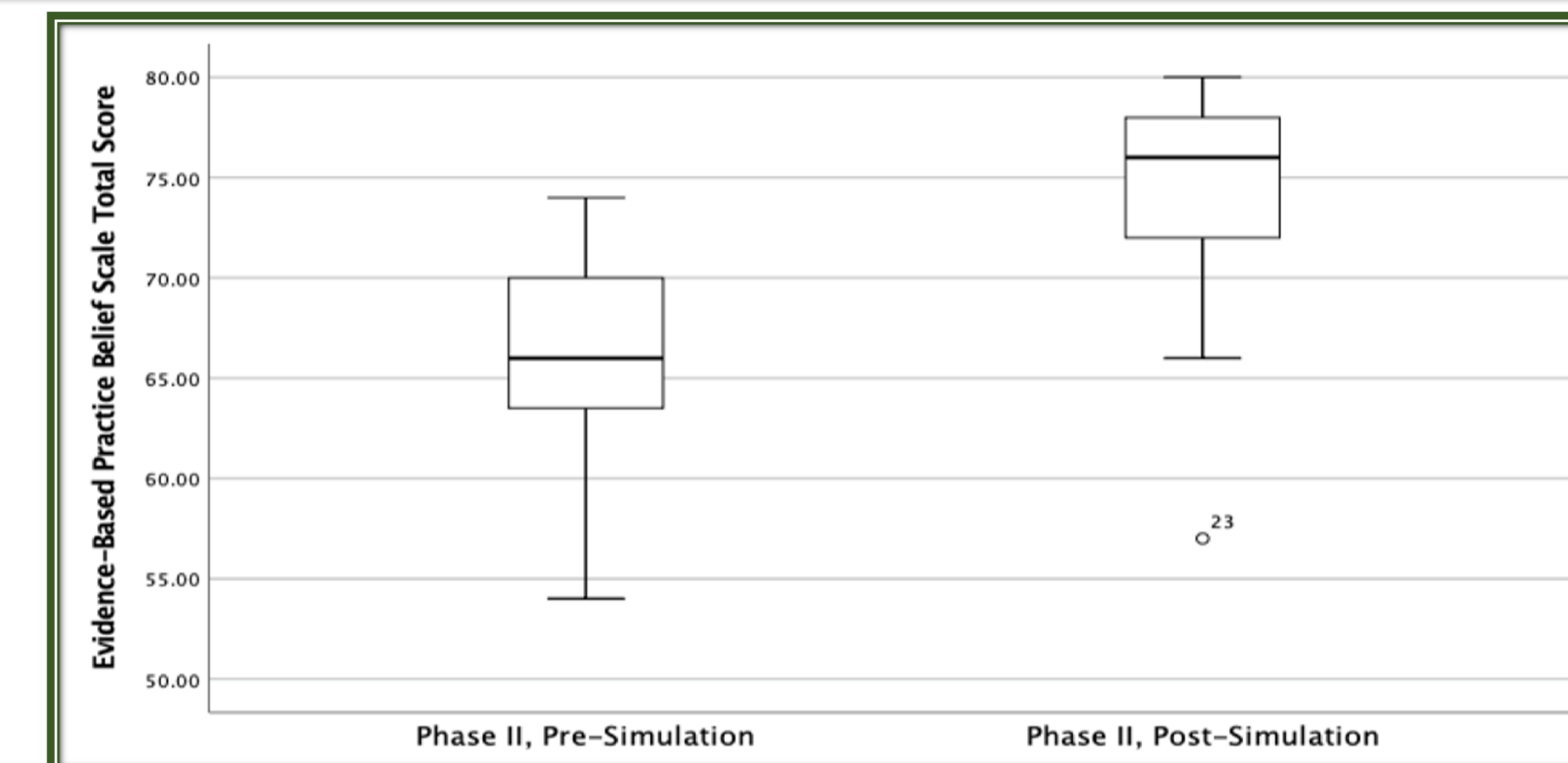
Total Knowledge Assessment Scores for Phase I and Phase II participants



Total Knowledge Assessment Scores for Phase I and Phase II participants (Items 1-6)



Total Knowledge Assessment Scores for Phase I and Phase II participants (Items 7-12)



Evidence-Based Practice Belief Scale Scores for Phase II participants

## Discussion

- Despite evidence that opioid-free perioperative care may decrease the risk of relapse in patients with pre-existing OUD, many of these patients are still being treated with opioids.
- Post-program outcomes demonstrate an increase in knowledge of OUD and improved beliefs in the value of EBP for the care of patients with OUD.
- The mean EBPBS score increased from 66.1 to 78.4 ( $P < 0.00$ ) after training. This finding suggests that multimodal, simulation-based training may be useful for instilling confidence and increasing enthusiasm in providers to manage the complex medical issue of perioperative pain management in patients with OUD.
- University anesthesia programs and anesthesia departments can use the program that has been developed to increase knowledge and willingness to administer opioid-free perioperative care.

## Future Nursing Implications

- Programs developed to enhance quality, non-opioid pain management, are critical for improving the quality of care for patients with OUD. This program can now be easily implemented in university training programs and various anesthesia departments.

## Sustainability

- This program will be provided, free of charge, to anesthesiology training programs who request it. It has already been distributed to 4 programs in the US and is in the publication process in Finland.

## References

Available via QR Code



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