

INTRODUCTION

- Up to 70% of surgical patients experience inadvertent perioperative hypothermia (IPH)¹
- Hypothermia significantly contributes to perioperative morbidity and mortality as it:
 - Prolongs effect of anesthetic drugs, which can prolong mechanical ventilation and lengthen postoperative recovery²
 - Impairs coagulation and platelet function, causing increased blood loss and more frequent blood product transfusions
 - Increases risk of infection, morbidity related to cardiac events, and patient discomfort and dissatisfaction^{3,4}
- Unintentional hypothermia increases cost by \$2,412 to \$6,839 per patient⁵
- Without understanding and addressing the reasons behind the continued prevalence of IPH, healthcare organizations will continue to experience unnecessary costs and a potential lack of reimbursement for services provided and surgical patients may continue to experience preventable discomfort and adverse health events
- The purpose of this quality improvement project was to assess anesthesia providers' perceptions regarding current practice for perioperative temperature monitoring and of a newly developed intraoperative temperature monitoring and management educational resource

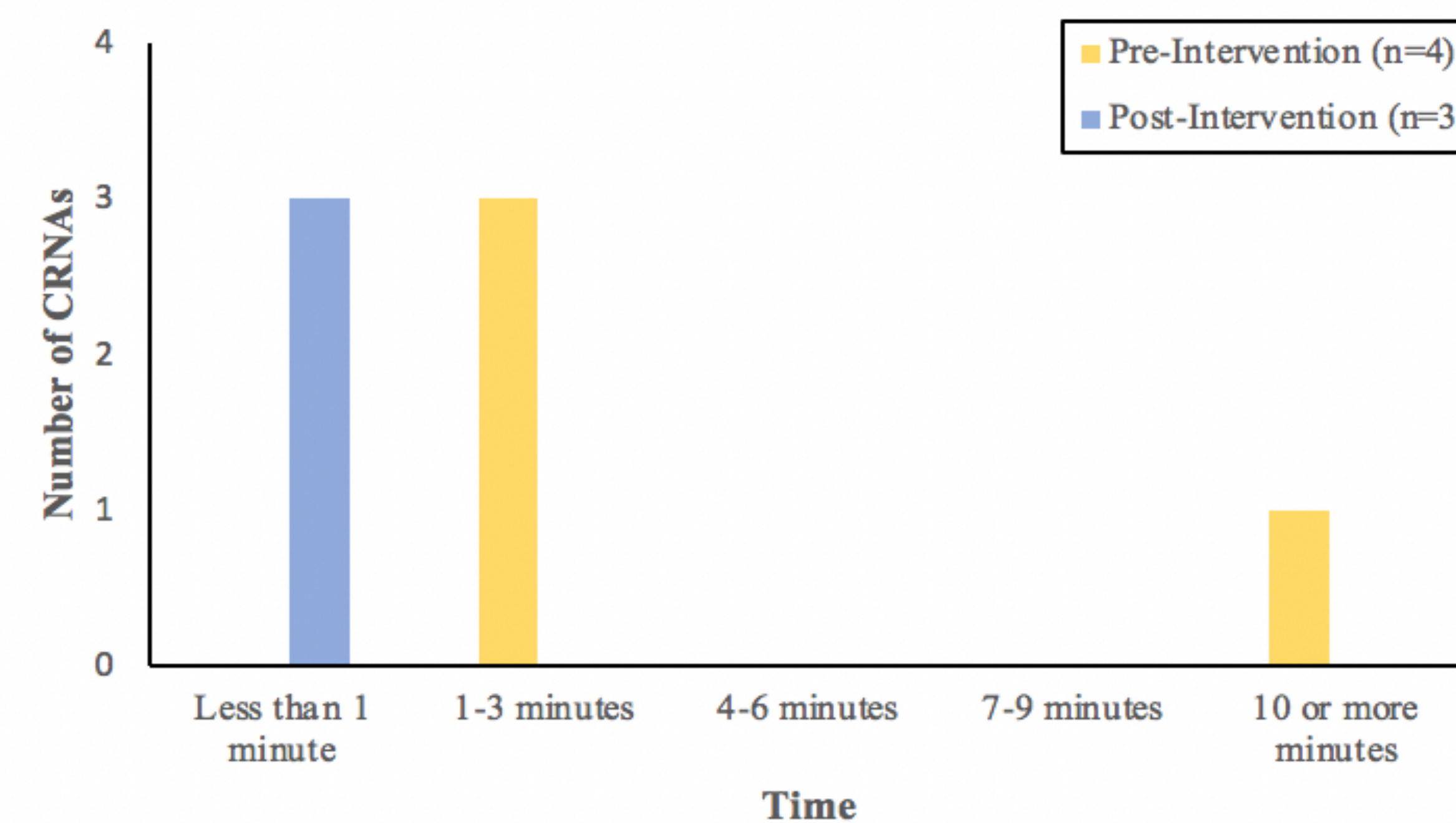
METHODS

- A single Plan, Do, Study, Act cycle (2021) was completed using a pre-test/post-test design
- Participating CRNAs were asked to complete a pre-intervention survey
- They were asked to view a PowerPoint presentation with audio providing continuing education on perioperative temperature monitoring and management. They were provided an electronic, printable, one-page resource summarizing the information presented in the PowerPoint presentation
- The participating CRNAs were invited to keep the resource readily available to them and use it as an evidence-based resource to support their clinical practice over the course of two weeks
- After the two-week implementation period, the CRNAs were asked to complete a post-intervention survey.
- Changes in perceptions served as the outcome measures for this project

RESULTS

Figure 1

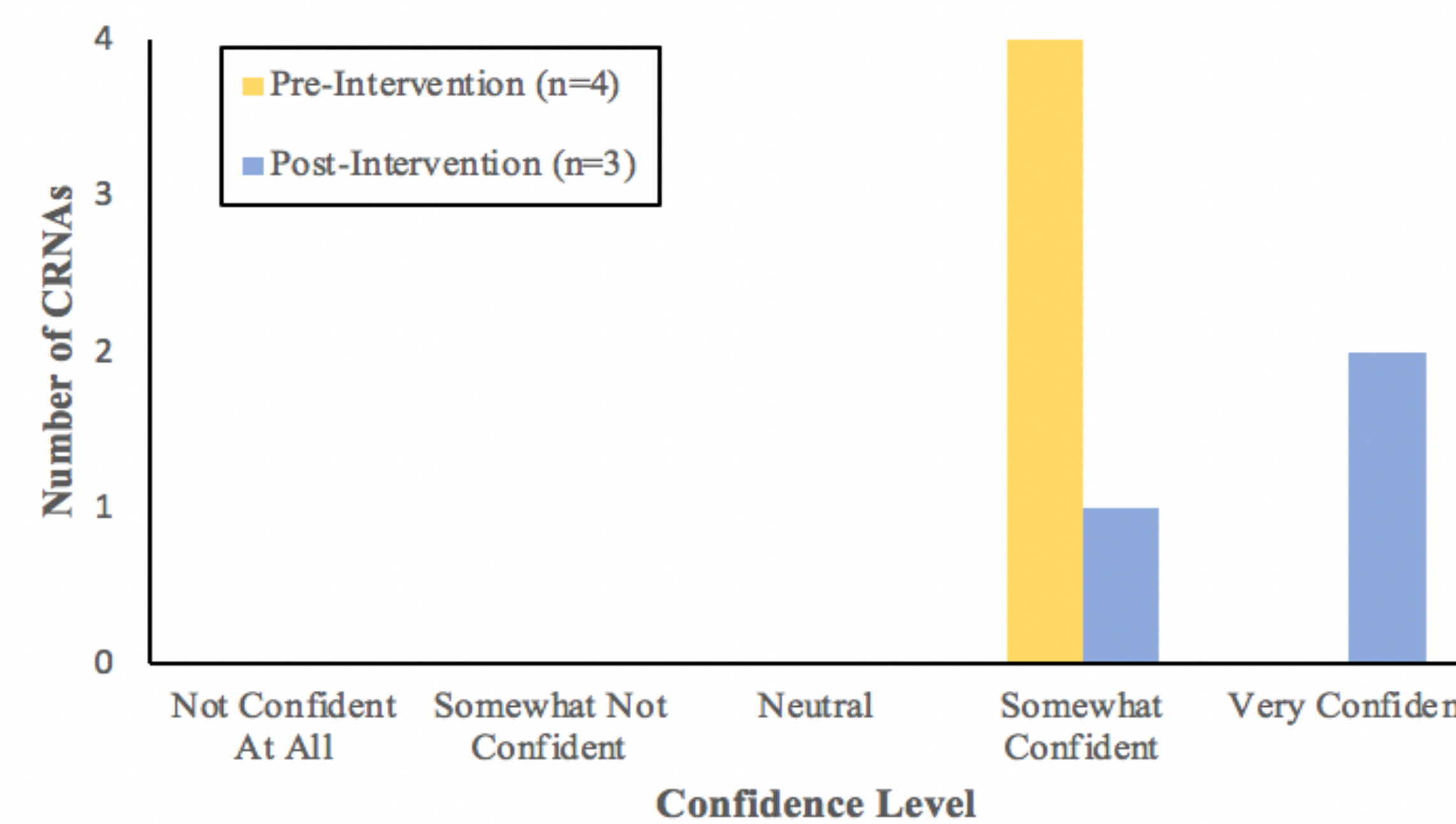
Estimated Time to Access a Reference of Evidence-Based Guidelines to Address a Question Regarding Perioperative Temperature Monitoring



Note. Pre-survey responses reflect estimated time CRNAs report that it takes to access an evidence-based reference. Post-survey responses reflect estimated time CRNAs report it takes to access the evidence-based educational resource supplied in the project intervention

Figure 2

Perceived Confidence Level Regarding Knowledge of Perioperative Temperature Monitoring



REFERENCES

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3. Sari, S., Aksoy, S. M., & But, A. (2021). The incidence of inadvertent perioperative hypothermia in patients undergoing general anesthesia and an examination of risk factors. *International Journal of Clinical Practice*, 75(6). <https://doi.org/10.1111/ijcp.14103>
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DISCUSSION

- Comparing the results of the pre- and post-implementation surveys demonstrated an INCREASE in participants'
 - Perceived confidence level in their knowledge of perioperative temperature monitoring
 - Perceived ability to identify core temperature sites and patients at high risk for IPH
 - Intended future participation in intraoperative temperature monitoring

Project Results further demonstrated:

- Improved efficiency in accessing evidence-based supportive materials about perioperative temperature management
- Participants improved awareness of the AANA national standards about temperature monitoring requirements
- Perceived barriers to optimal temperature monitoring and management practices that can be used to guide future quality improvement projects
- Limitations of the project included small sample size, short duration of implementation, and differing numbers of pre- and post-intervention survey responses.

CONCLUSIONS

The project findings suggest:

- A positive association between providing continuing education on the physiology of IPH and recommended practices for preventing IPH with adherence to them
- Educational interventions may be a cost-effective method producing outcomes that can contribute to reductions in IPH
- An increased observance of recommended temperature monitoring and management practices, which could improve patient outcomes and reduce healthcare costs
- This project could be used as a pilot to inform future QI projects aimed at minimizing the incidence of IPH
- Recommendations for future QI Projects:
 - Continue to use education
 - Involve in-person education, a clinical checklist, and a temperature management quality champion
 - Increase project implementation time and use a larger sample to improve interpretation and implications of results