



Assessment for Improving OR Nurse Knowledge and Preparedness During Pediatric Critical Events: A Quality Improvement Initiative

Alisa Melnikova SRNA, OHSU, Caleb Stephens SRNA, OHSU, Julie Soelberg PhD., OHSU

Background

- Approximately 3.9 million pediatric patients between the ages of zero and 17 undergo surgery annually in the United States
- The most common serious adverse events in the pediatric operating rooms (OR) are respiratory events, medication events, and cardiac arrest
- Respiratory events happen twice as often in children compared to the general population and can have a prevalence as high as 20%
- Critical events cause an unpredictable increase in stress for operating room nurses who are already working in a complex, high-level stress environment

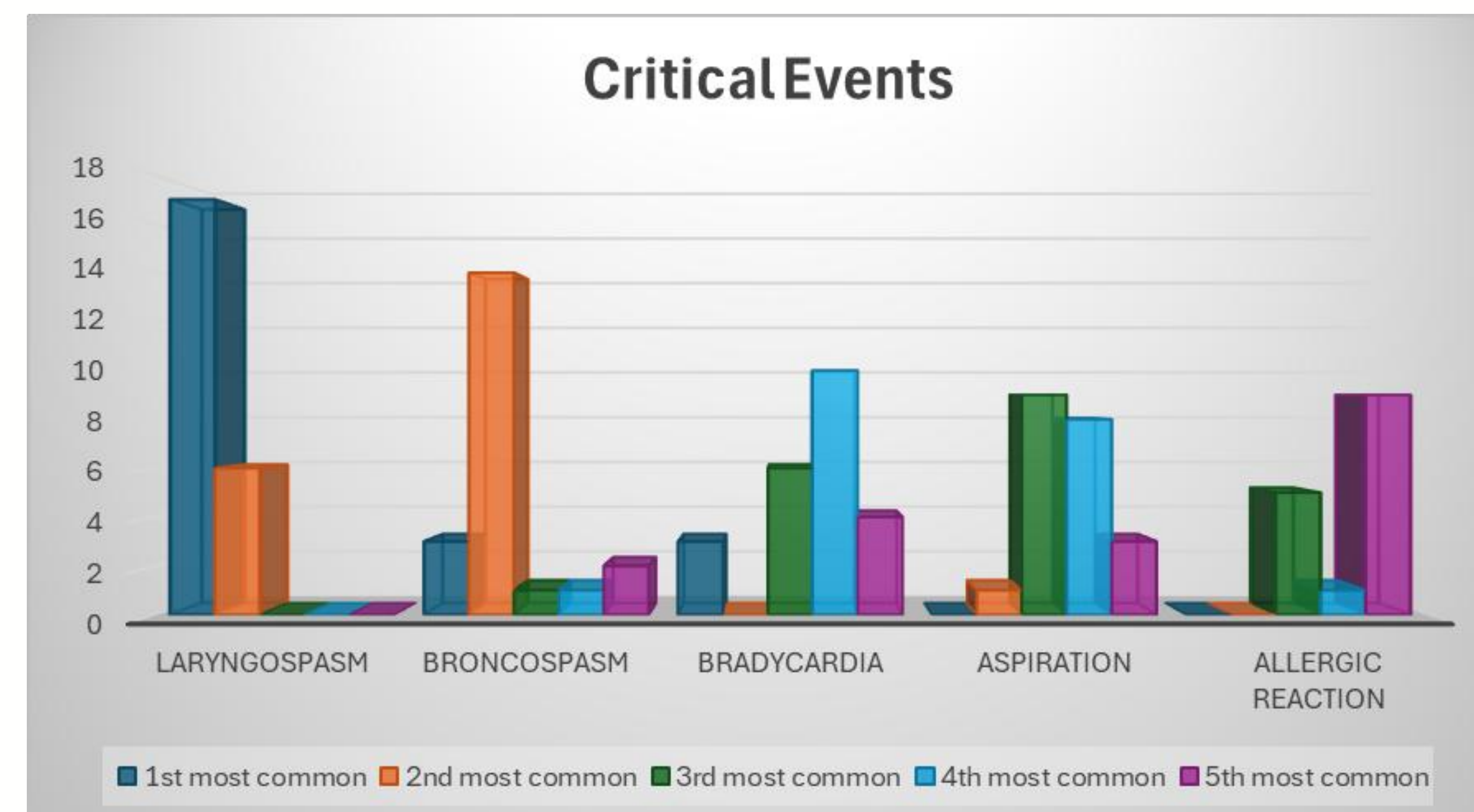
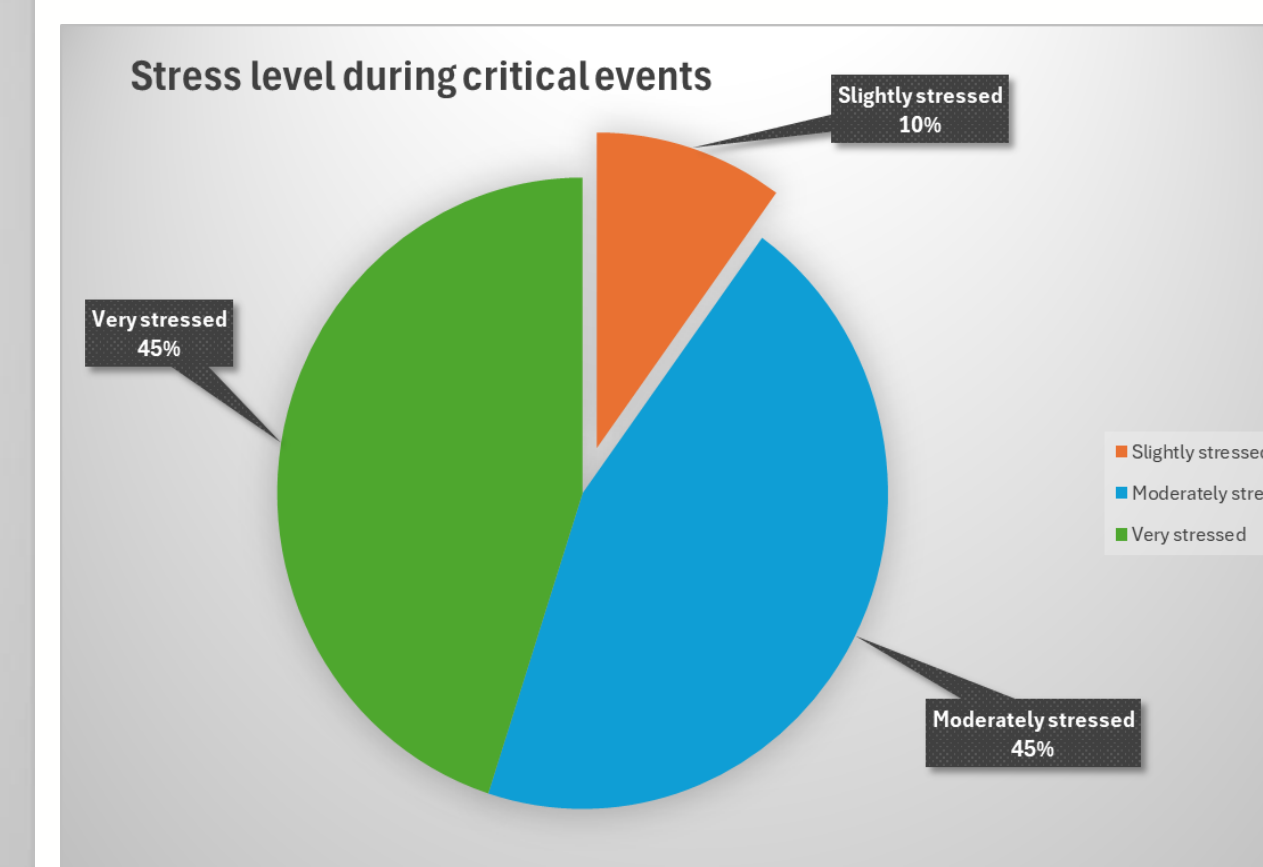
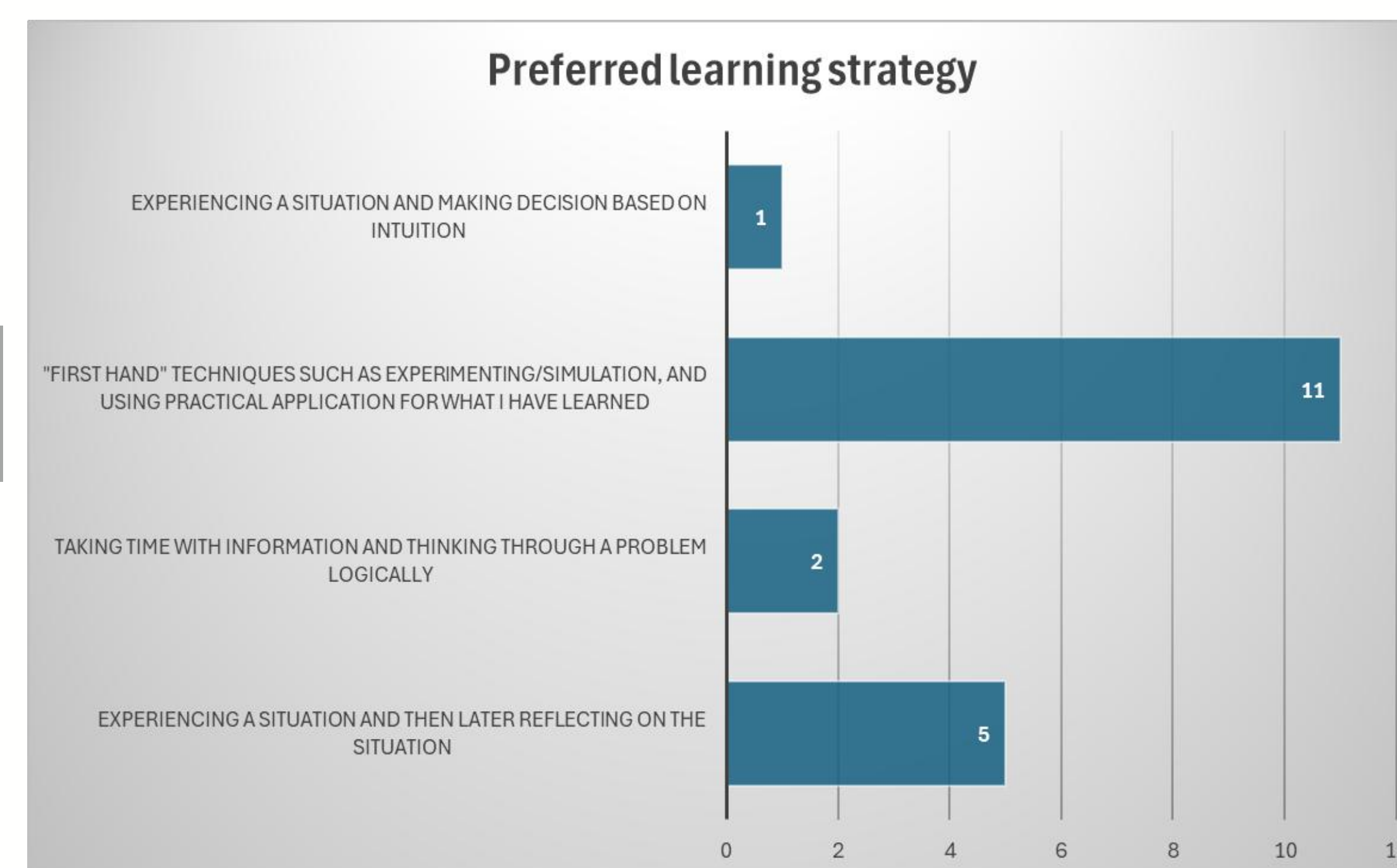
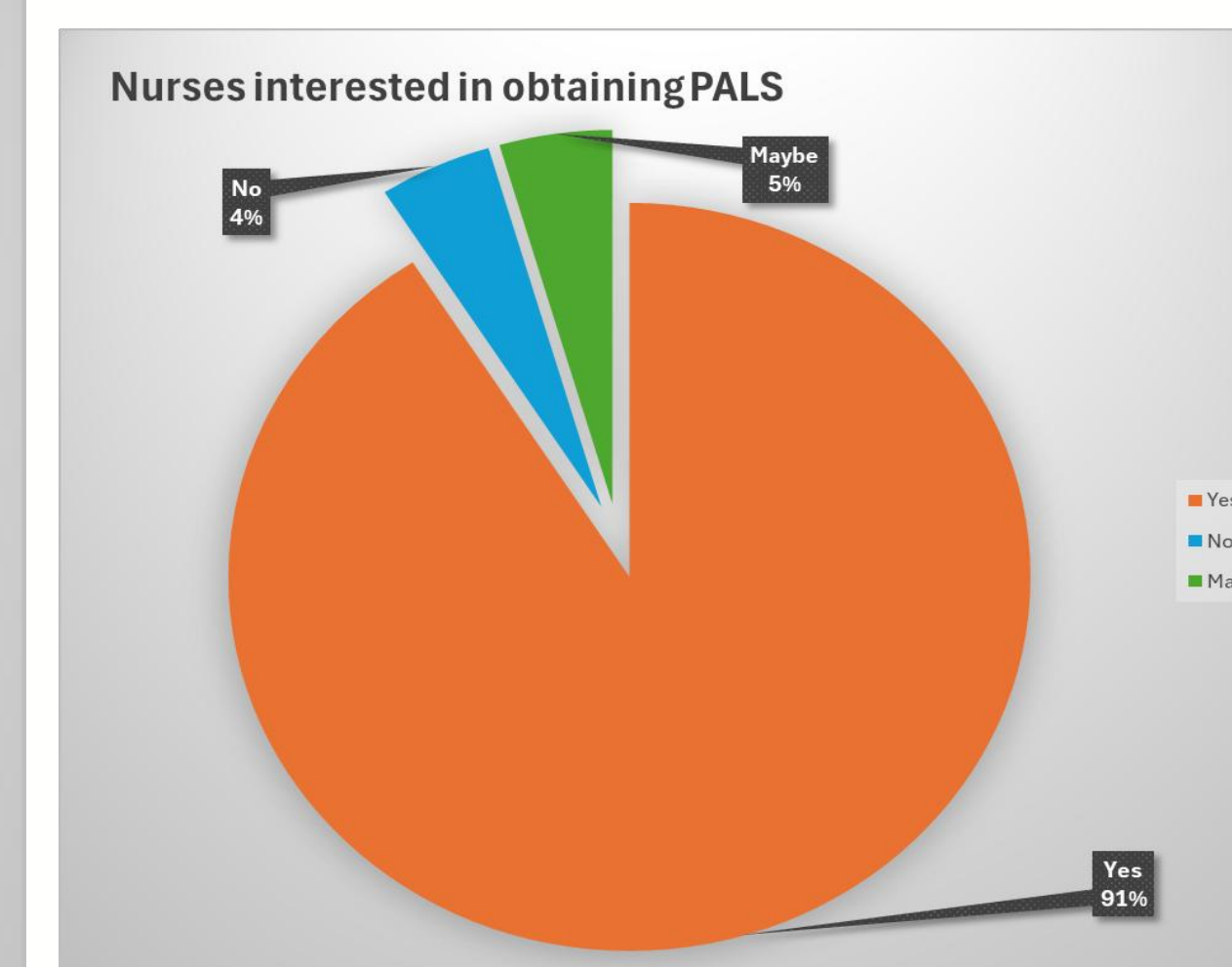
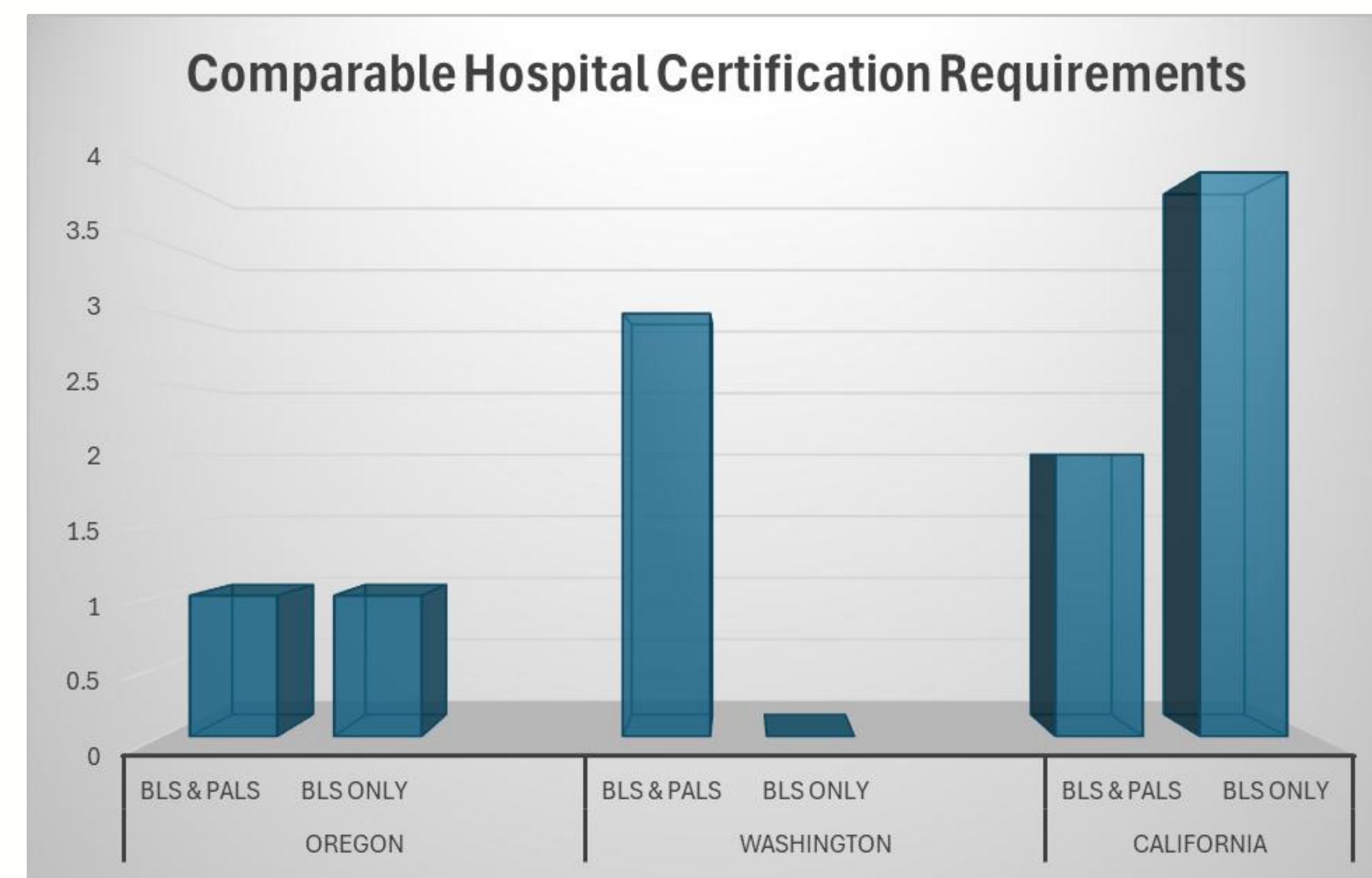
Aim

This QI project aimed to evaluate and assess ways OR nurses at Doernbecher Childrens Hospital (DCH) can be more prepared and knowledgeable to provide care and assistance during critical events

Methods

- Designed and distributed surveys to DCH OR nurses to evaluate their experience with critical events, perceived confidence, stress levels, and familiarity with their roles during such events. Additionally, the survey explored their preferred learning styles.
- Gathered data on local and regional hospital requirements for pediatric OR nurse certifications
- Analyzed results of the survey and presented findings to DCH OR leadership

Results



Conclusion

- Moderate to High levels of stress during critical events
- Widespread interest in obtaining PALS certification
- Preferred learning styles using simulation and targeted workshop training

Recommendations

- Provisions for PALS training opportunities offered to DCH nurses
- Targeted workshops and simulation exercises that address step-by-step laryngospasm management

Limitations

- The survey link was emailed to all DCH staff including surgical and core technicians
- Voluntary nature of survey could have led to self-selection bias
- The findings of this project are specific to DCH ORs and are not generalizable to other institutions

Acknowledgements

Special thanks to Brian Droege, Cetera Peterson, and Daniel DeVries of DCH leadership for their involvement and support

