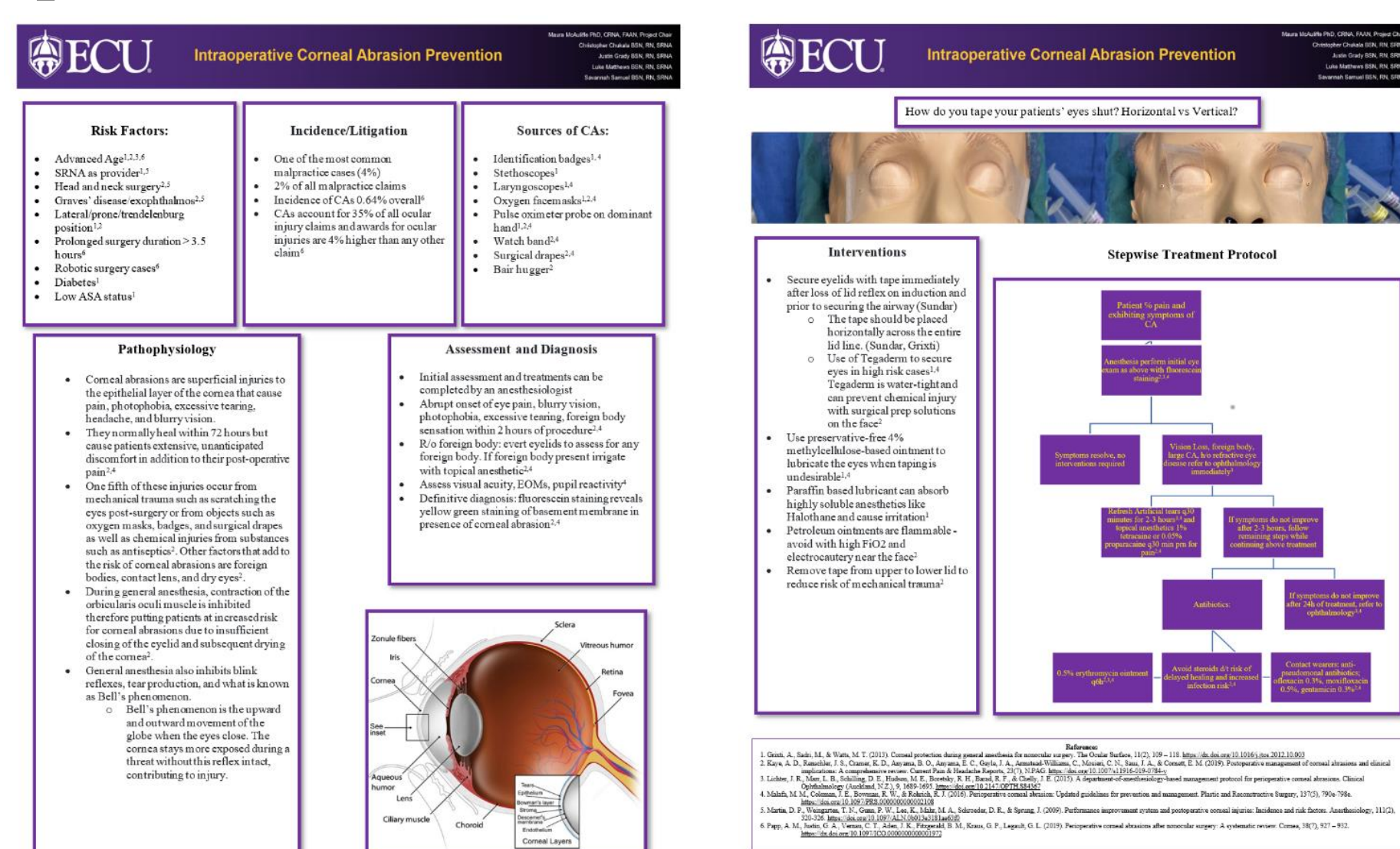


## INTRODUCTION

- Corneal Abrasions (CAs) are the most common optic injury that occur during general anesthesia (Grixti et. al, 2013).
- CAs represent 2-3% of all anesthesia malpractice suits.
- Incidence of CAs is 0.64% overall (Papp et. al, 2019).
- CAs represent 35% of all ocular injury claims, and awards for ocular injuries are 4% higher than other types of claims (Papp at. al, 2019).
- Like most institutions, the partnering facility does not require a standard approach to perioperative eye care.
- The purpose of this quality improvement (QI) project was to assess CRNAs' knowledge, preferences, and practice for corneal abrasion prevention as well as their perception of adequacy of a quick reference guide as a useful tool for their practice as it pertains to eye protection.

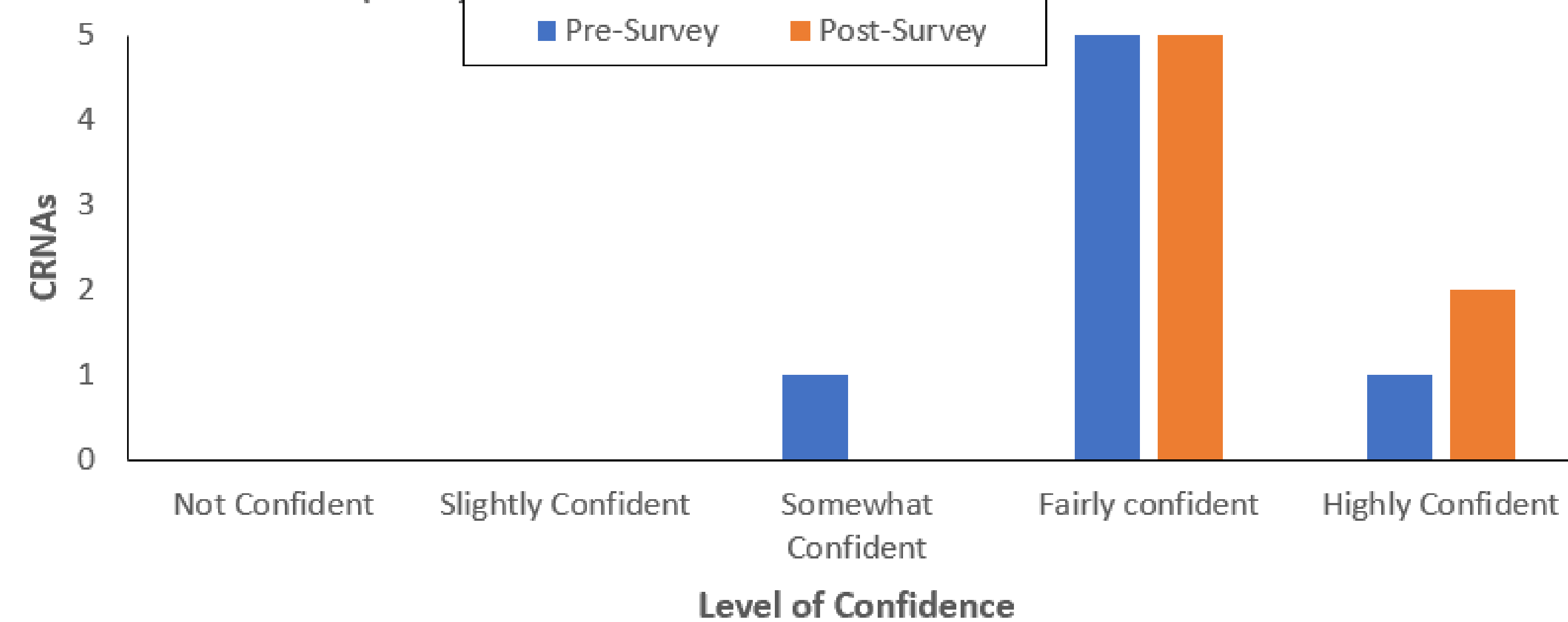
## METHODS

- Pre- and post-intervention survey design
- Framework adapted from Plan-Do-Study-Act (PDSA; IHI, 2021).
- A perioperative corneal abrasion quick access reference guide was created, summarizing evidenced-based practice guidelines
- The guide, introductory video, and a pre-intervention questionnaire were distributed via email, as well as in print, to CRNAs working in an ambulatory surgical center
- CRNAs utilized the guide in their practice for two weeks then completed a post-intervention questionnaire

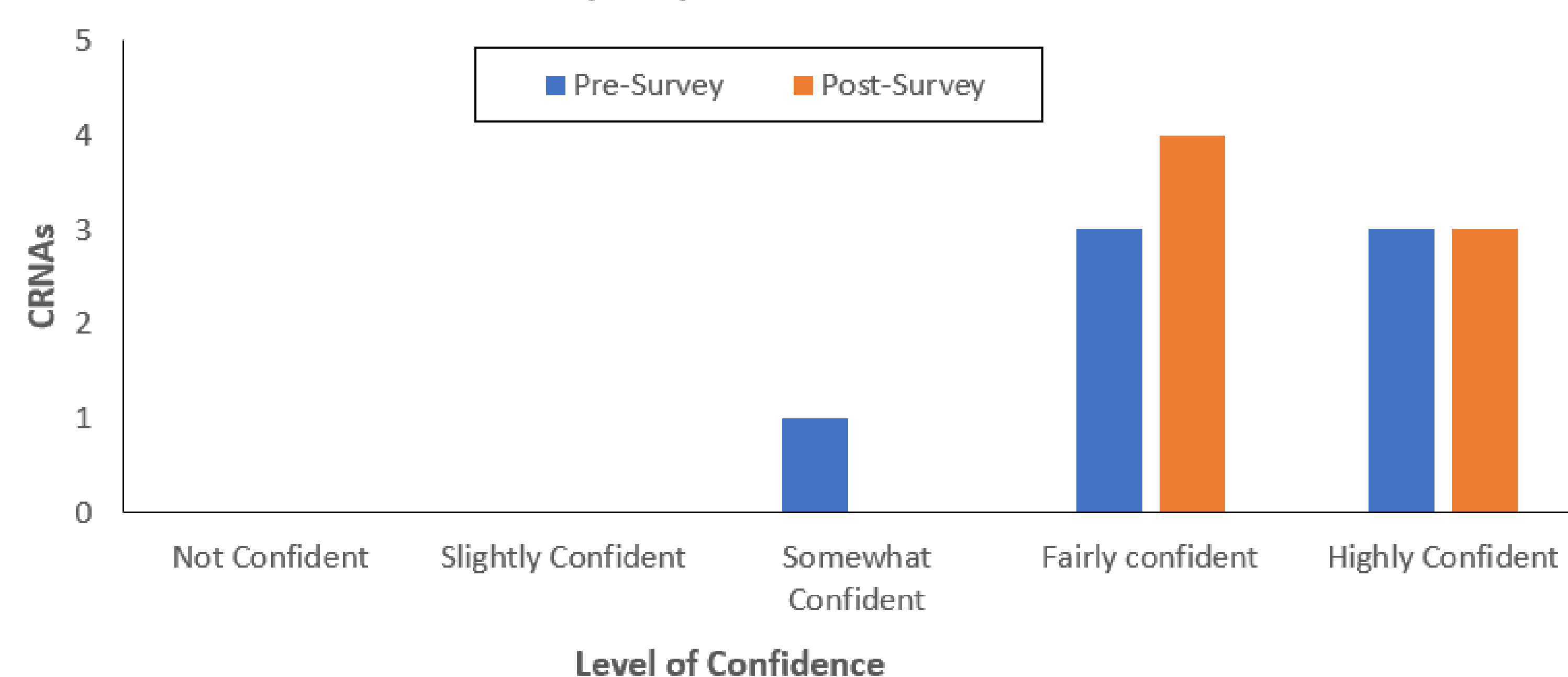


## RESULTS

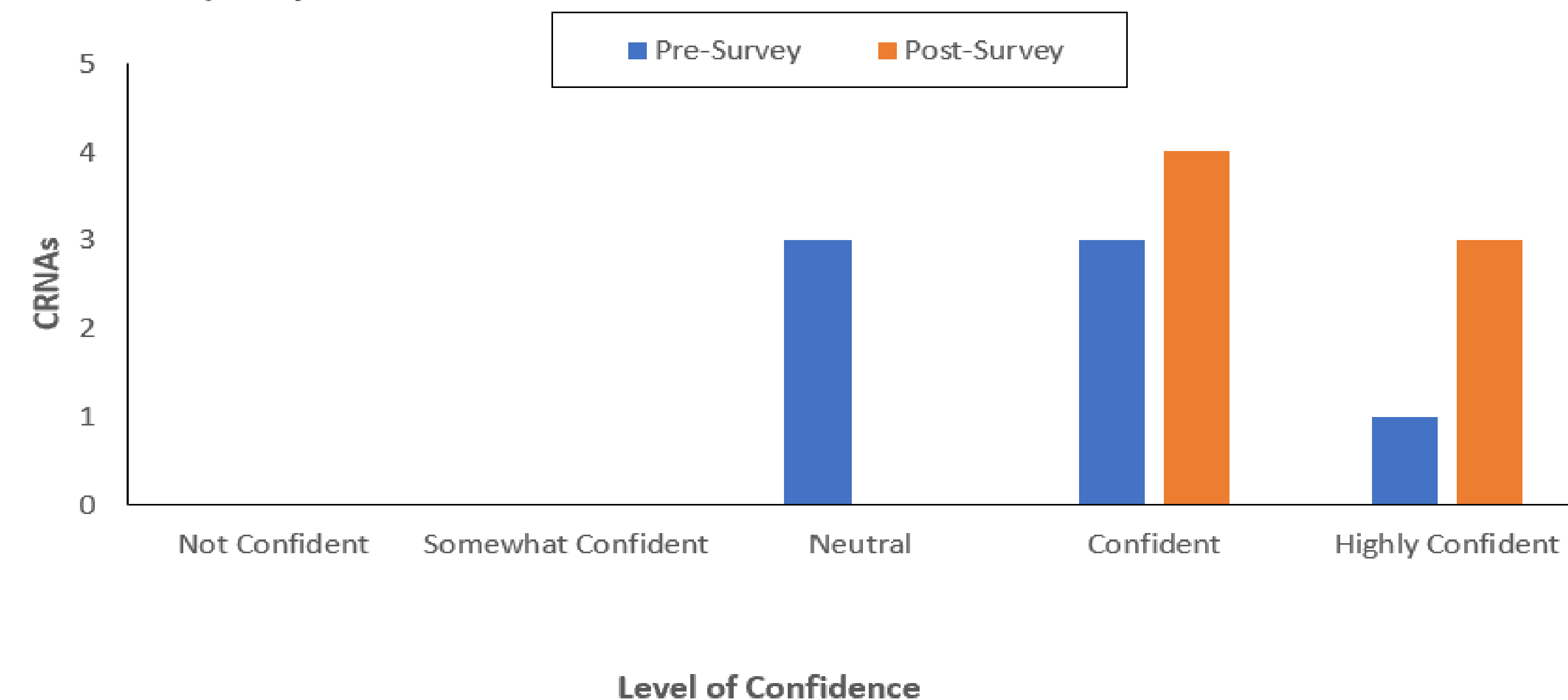
**Figure 1**  
Confidence in Your Ability to Identify Patients at High Risk for Corneal Abrasions (n=7)



**Figure 2**  
Confidence in Ability to Take Appropriate Measures to Prevent Corneal Abrasions (n=7)



**Figure 3**  
Confidence in Ability to Assess, Diagnose, and Treat Corneal Abrasions (n=7)



## DISCUSSION

- CRNAs' confidence in their ability to identify patients at high risk for corneal abrasions post-implementation of the Quick Access Reference Guide increased compared to pre-implementation responses.
- Three of the seven participants reported perceiving the corneal abrasion quick access guide as useful for their future practice to prevent corneal abrasions.
- Facilitated evidence-based practice
- Reported ability to Assess, Diagnose, and Treat corneal abrasions increased after the intervention
- Improved staff confidence in knowledge
- Improved staff efficiency
  - Saved time to access reference material
  - Prevention of trauma to patient/staff: unquantifiable

## CONCLUSIONS

- The corneal abrasion quick access reference guide improved CRNAs' perceptions in their abilities to take preventative measures, assess diagnose, and treat CAs
- The majority of CRNAs did not report the quick access reference guide would be useful to their future practice
- Production pressure at this fast-paced facility may have hindered some of the CRNAs using the guide in operating rooms that have quick procedures and fast turnover times
- Electronic charting improvements resulted from this project which will streamline care
- Chief Anesthesiologist requested a copy of the quick access reference guide for partnering organization
- Further research needed
  - Larger sample size
  - Comparison between subjective and objective methods

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