

# Predoctoral Training in Adverse Childhood Experiences and Children's Oral Health

## Introduction

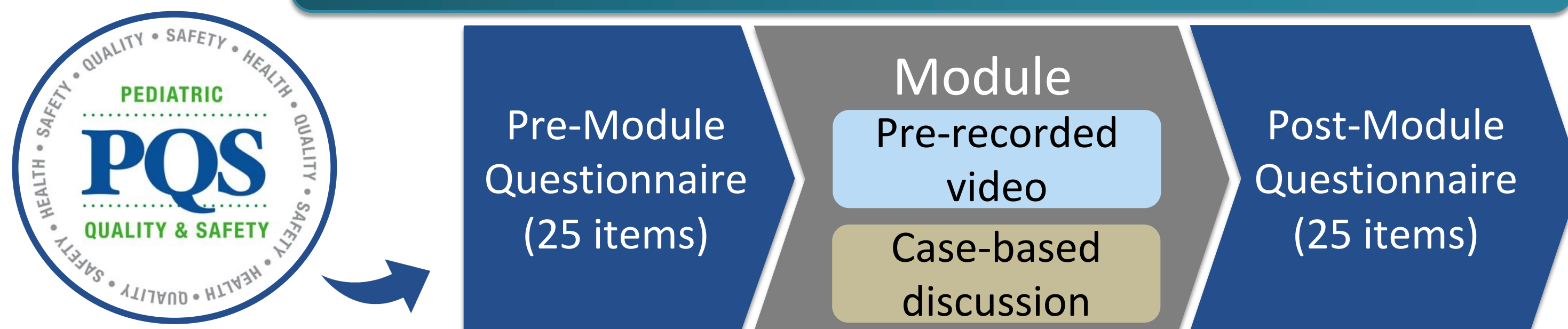
The ADA has estimated that general dentists provide care for over 75% of children between 5-17 years old<sup>1</sup>. This places an onus on predoctoral education to teach the many facets of pediatric dentistry including adverse childhood experiences (ACEs) and toxic stress.

Adverse childhood experiences are adversities experienced during one's youth<sup>2</sup>. ACEs can create circumstances for excessive, chronic stress to affect a child's physiological and psychological development; this is known as the toxic stress response<sup>3-6</sup>. Scarce information and guidelines are available to prepare future dentists to deliver care and manage children with ACEs.

**Purpose:** This project aims to evaluate dental students' knowledge, attitudes, and awareness about ACEs. The goal is to create foundational learning material and guidelines about ACEs and ACE screening in dental education.

## Materials & Methods

Third year dental students in 2022 and 2023

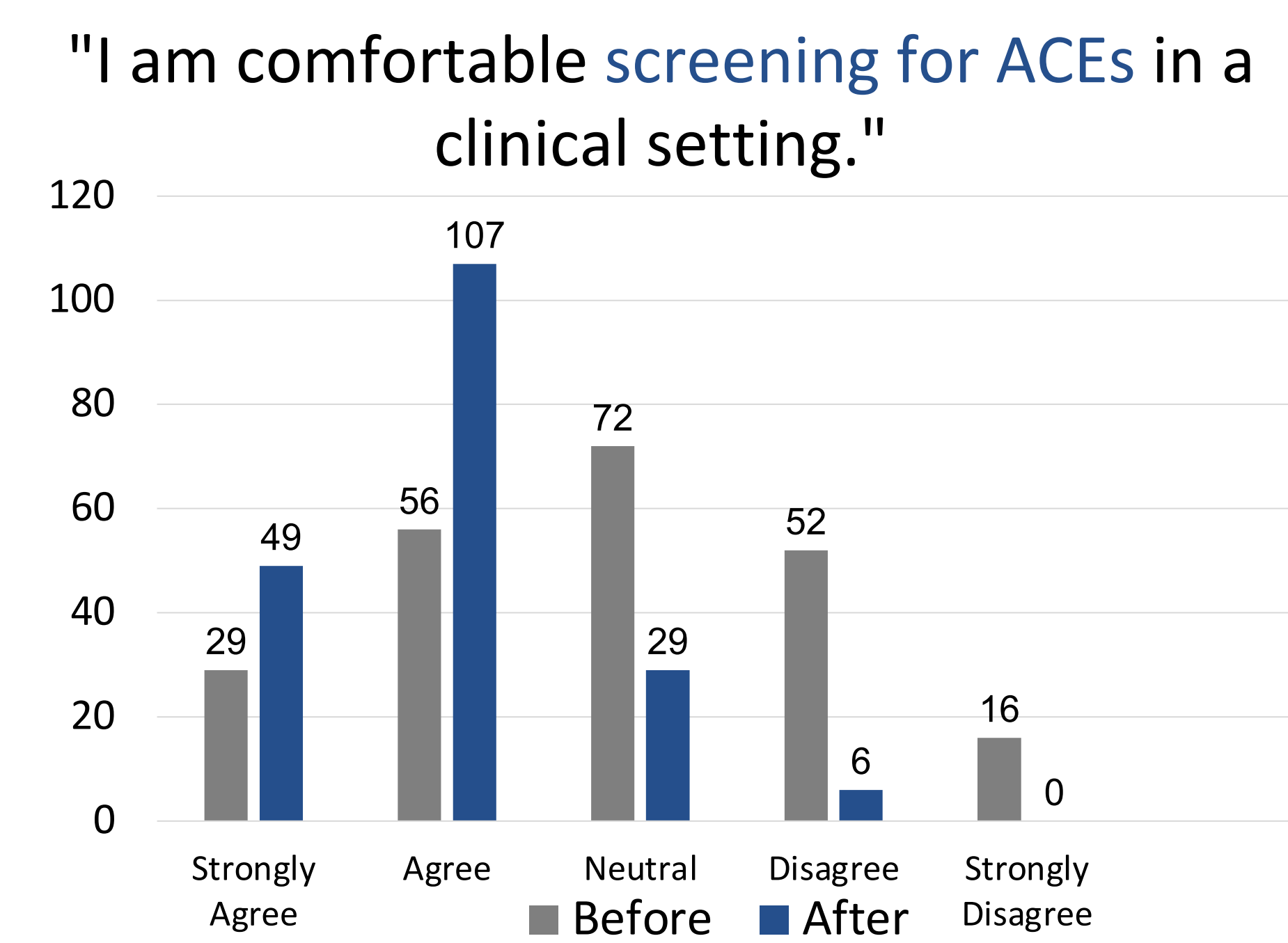
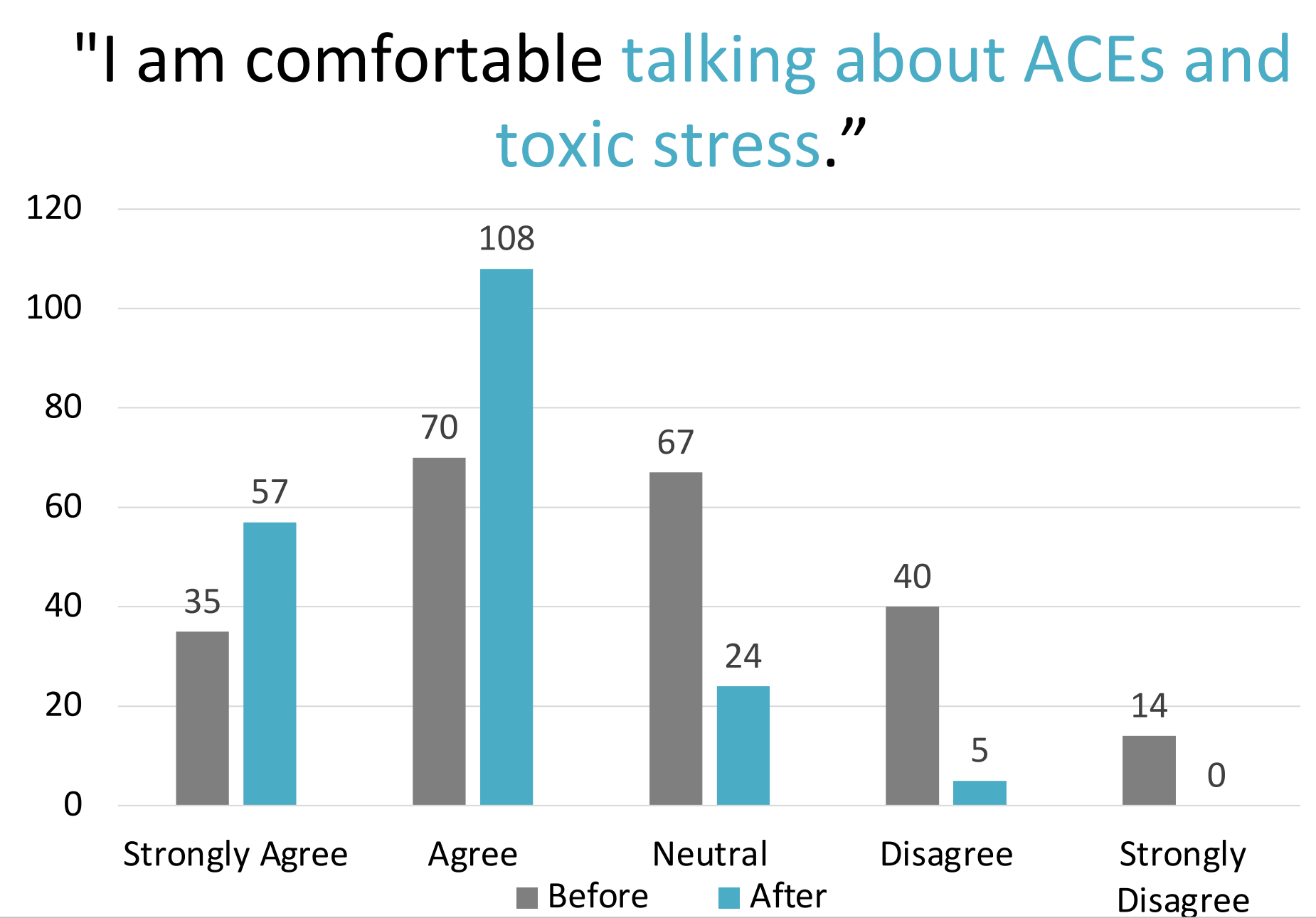


**Table 1.** Study cohort characteristics

Demographics	Pre-Module	Post-Module
Total	226	195
<b>Age</b>		
21 and less	1	1
22-25	105	95
26-29	83	67
30-33	26	25
34+	11	7
<b>Gender</b>		
Male	88	71
Female	135	123
Non-Binary	0	0
Prefer not to answer	3	1

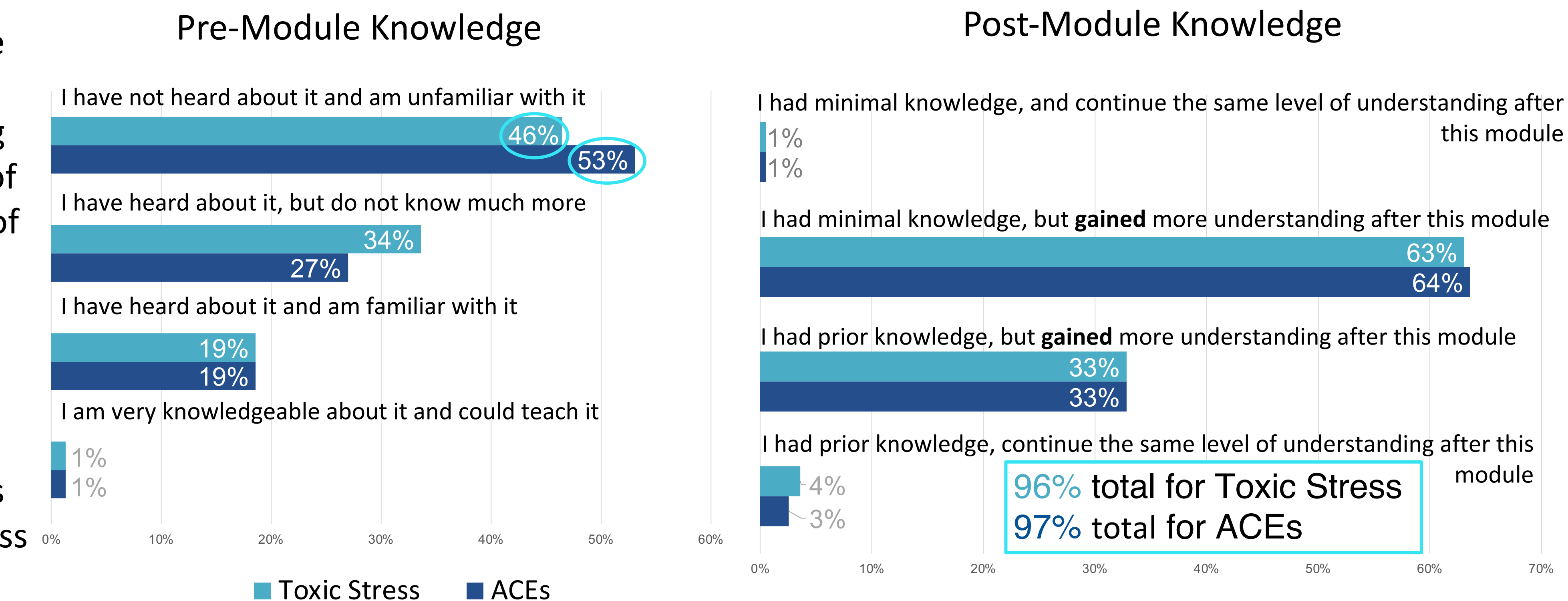
**Figure 2.**

Pre-module (Before) and post-module (after) questionnaire responses to the statement asking about comfort in talking about ACEs and toxic stress. After the module, there was an 57% increase in students agreeing to the statement.



## Results

**Figure 1.** Pre-Module vs. Post-Module questionnaire results. Pre-module data shows students' underlying knowledge. 46% and 53% of students had never heard of toxic stress and ACEs, respectively, prior to the module. Post-module data shows that over 95% of students answered that, compared to their previous understanding of toxic stress and ACEs, they gained understanding from the module.



## Conclusion

The study demonstrated an increase in knowledge, attitudes, and awareness with ACEs and toxic stress for third-year dental students. Students felt greater comfort in discussing and screening for ACEs because of this module. This creates a foundation for further predoctoral and provider engagement about ACEs in clinical settings for resident and predoctoral patient care.

This module can be replicated and utilized regularly. Its material can be applied within pediatric dentistry education for predoctoral and postdoctoral curriculums.

**Figure 3.** Pre-module (Before) and post-module (after) questionnaire responses to the statement asking about comfort in screening for ACEs in a clinical setting. After the module, there was an 85% increase in students agreeing with the statement.

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