

Purpose

The goal of the Teaching Oral-Systemic Health (TOSH) Program Pediatric Oral Health Interprofessional Clerkship, funded through a grant from the Health Resources and Services Administration (HRSA), is to build interprofessional oral health workforce capacity through acquisition of the *Core Competencies for Interprofessional Collaborative Practice* (IPEC, 2016) and the *Interprofessional Oral Health Core Clinical Competencies* (HRSA, 2014) among future primary care providers by engaging nurse practitioner, dental, and medical students in an interprofessional oral-systemic health clinical experience.

Learning Objectives

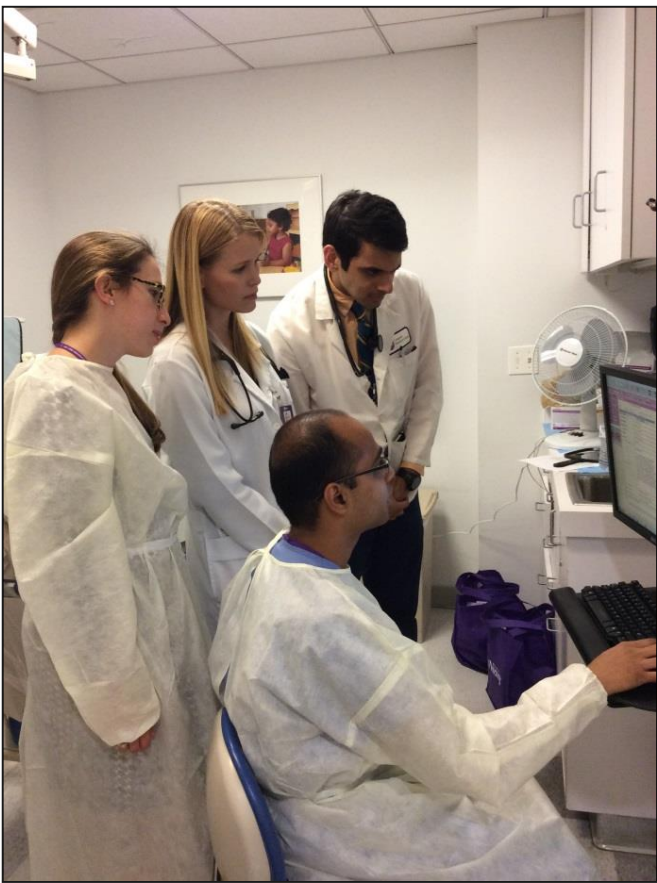
- The learning objectives of the Clerkship are for students to:
- Apply pediatric oral health assessment (health history, risk assessment, exam, prevention, education and referral) for integration in primary care practice
  - Identify the pediatric oral-systemic health connection
  - Practice a team-based approach to improve oral-systemic health outcomes

Methods

- Nurse Practitioner, Medical, and Dental students participate in either one or two half-day clinical experiences to develop interprofessional oral health assessment, teamwork, and communication skills at Bellevue Hospital Pediatric Dental Clinic and/or Pediatric Primary Care Clinic
- Student Home Assignment:
  - Smiles for Life* Modules 2, 6 & 7
  - IPEC competencies
- Brief (facilitated by pediatric dental resident/pediatric resident)
  - Introductions and discussion of previous IPE experiences
- Implementation Protocol:

Patient 1	Patient 2	Patient 3
NP reviews chart	MD reviews chart	DDS reviews chart
NP takes history	MD takes history	DDS takes history
DDS does HEENOT exam and FV	NP does HEENOT exam and FV	MD does HEENOT exam and FV
HUDDLE – team adjusts plan as needed	HUDDLE – team adjusts plan as needed	HUDDLE – team adjusts plan as needed
MD gives patient education, prevention, anticipatory guidance, handouts, referral and follow-up	DDS gives patient education, prevention, anticipatory guidance, handouts, referral and follow-up	NP gives patient education, prevention, anticipatory guidance, handouts, referral and follow-up

- Debrief (facilitated by pediatric dental resident/pediatric resident)
  - Students discuss how working together as a team resulted in more effective patient care
- Evaluation
  - Interprofessional Collaborative Competencies Attainment Survey (ICCAS) given before and after experience



Outcomes

Figure 1 illustrates the ICCAS mean scores (pre and post) for nursing, dentistry, and medical students. Students' interprofessional competencies mean score increased after the pediatric IPE clerkship. The mean changes were statistically significant for all students in the College of Nursing ( $p<0.01$ ), College of Dentistry ( $p<0.01$ ), and School of Medicine ( $p<0.001$ ). All students had a significantly improved mean score after the pediatric IPE clerkship.

Figure 1. ICCAS Mean Pre and Post Scores by Student Type

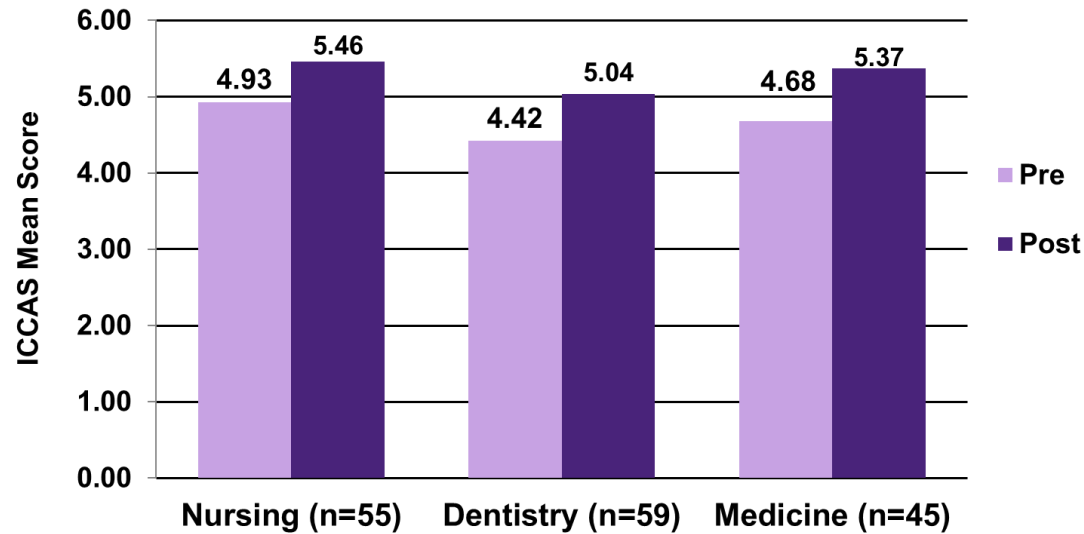


Figure 2 shows mean pre and post scores for each ICCAS topic area. All topic areas had changes in mean scores from pre to post that were statistically significant ( $p<0.001$ ). The findings suggest all students reported improved competencies after the Pediatric IPE Clerkship.

Figure 2. ICCAS Mean Pre and Post Scores by Topic Area

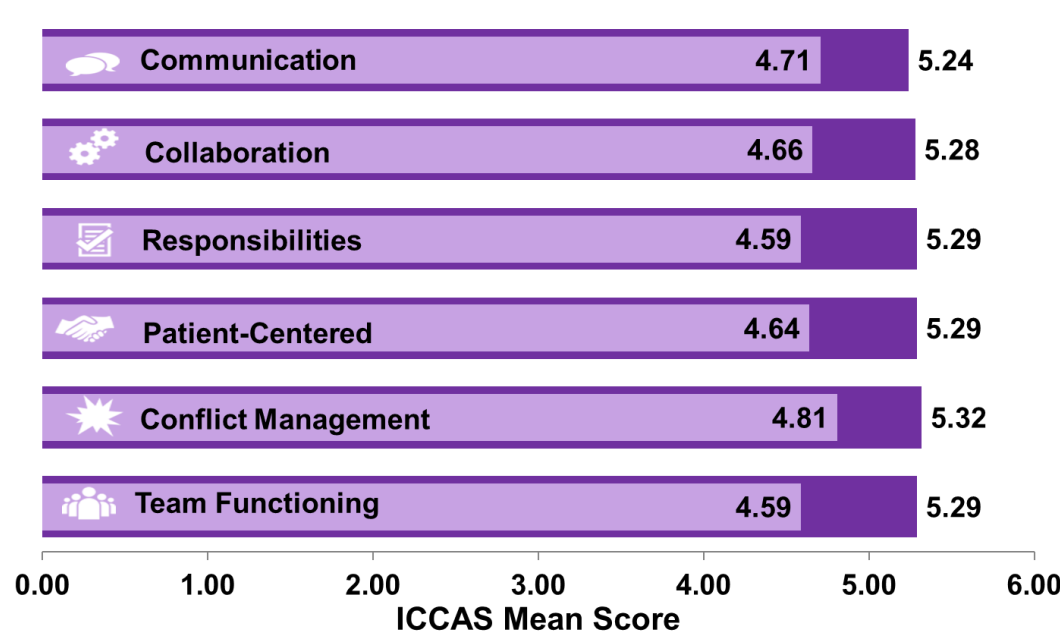


Figure 3 presents mean scores (pre and post) by setting type for all students. Students' interprofessional competencies mean score increased after the pediatric IPE clerkship in both settings. The changes in mean scores were statistically significant in each setting: primary care and dental clinic ( $p<0.001$ ). The findings suggest the students' interprofessional competencies improved after the pediatric IPE clerkship experience regardless of the setting.

Figure 3. ICCAS Mean Pre and Post Scores by Type of Setting

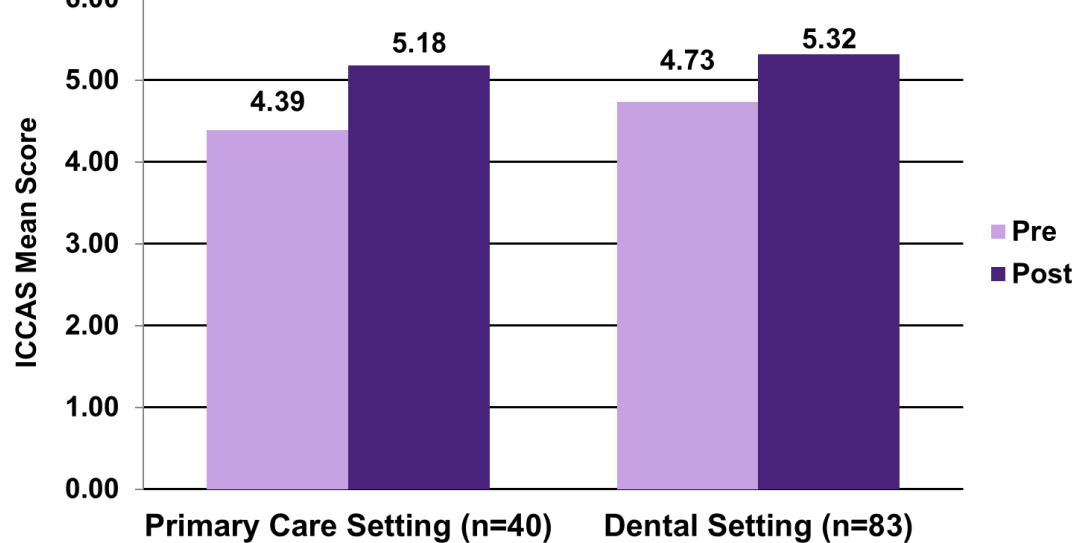


Figure 4. ICCAS Mean Pre and Post Scores by Number of Sessions

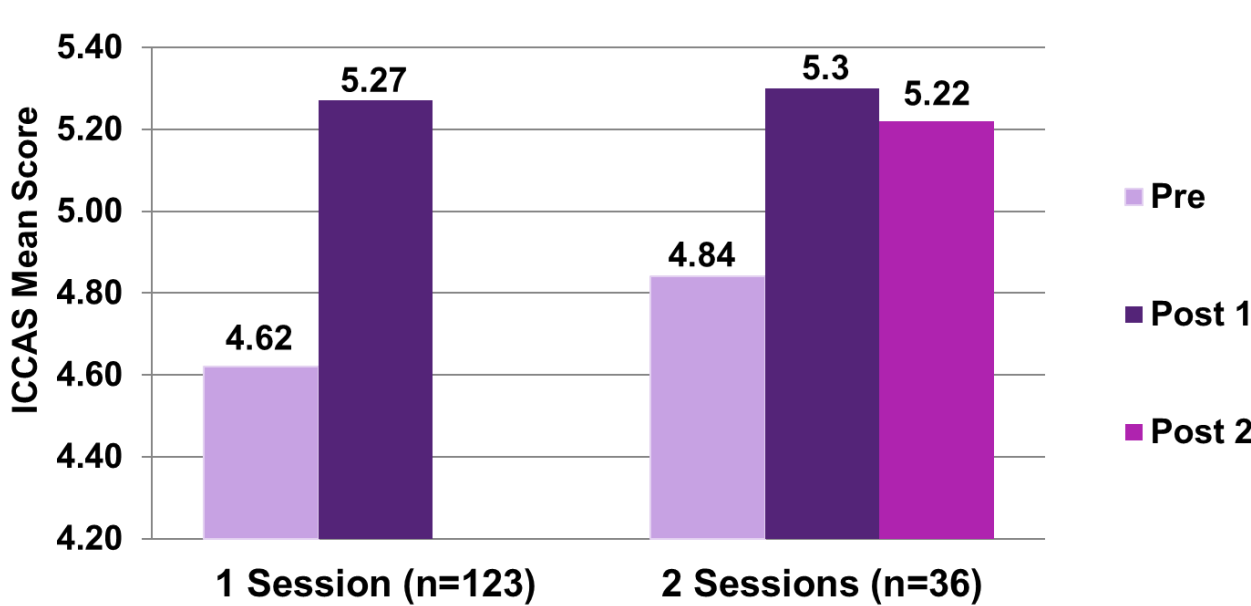


Figure 4 examines the added value of participating in two IPE sessions compared to one. This change in mean scores (from 4.62 to 5.27) was statistically significant ( $p<0.01$ ) for the 123 students participating in one IPE session. For the 36 students that participated in two IPE sessions and completed a post survey after each session, the change in mean scores after the first session (4.84 to 5.30) was significant ( $p<0.05$ ), however, the change from Post 1 to Post 2 (5.30 to 5.22) and the overall change (4.84 to 5.22) was not significant. The findings do not show any added value in having the second IPE experience.

Conclusions

The Pediatric Oral Health Interprofessional Clerkship was effective among nurse practitioner, dental, and medical students in increasing the students' perception of their own interprofessional competencies. It does not appear that participation in multiple IP sessions was valuable for the students. Ultimately, the findings suggest that a clinical approach, using oral-systemic health as a clinical exemplar, regardless of the setting, is an effective strategy for influencing the development of interprofessional competencies and improving students' reported attitudes towards interprofessional collaboration.

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