

Purpose

The goal of the Teaching Oral-Systemic Health (TOSH) Program Pediatric Oral Health Interprofessional Clerkship, which is funded through a grant from the Health Resources and Services Administration (HRSA), is to promote acquisition of the *Core Competencies for Interprofessional Collaborative Practice* (IPEC, 2011) and the *Interprofessional Oral Health Core Clinical Competencies* (HRSA, 2014) among future primary care providers by engaging family nurse practitioner (FNP), dental, and medical students in an interprofessional oral-systemic health clinical experience.

Learning Objectives

The learning objectives of the Clerkship are for students to:

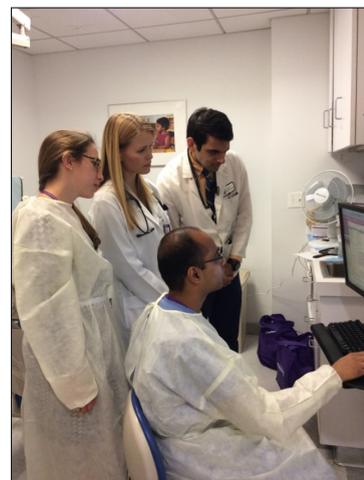
- (1) Apply pediatric oral health assessment (health history, risk assessment, exam, prevention, education and referral)
- (2) Identify the pediatric oral-systemic health connection
- (3) Practice a team-based approach to improve oral-systemic health outcomes

Methods

- Family Nurse Practitioner, Medical, and Dental students participate in either one or two half-day clinical experiences to develop 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)
 - Introductions and discussion of previous IPE experiences
- 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)
 - Students discuss how working together as a team resulted in better patient care
- Evaluation
 - Interprofessional Collaborative Competencies Attainment Survey (ICCAS) given before and after experience



Outcomes

Figure 1 shows the ICCAS mean scores (pre and post) for FNP, dental, 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 ($p < 0.01$) and School of Medicine ($p < 0.05$). The mean changes were not statistically significant for students in the School of Dentistry, the smallest group of students. However, all students had an improved mean score after the pediatric IPE clerkship.

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

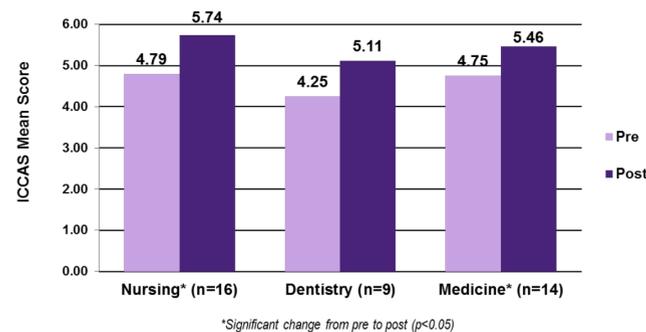


Figure 2 shows mean pre and post scores for each ICCAS topic area. All topic areas had changes in mean scores from pre to post that were statistically significant ($p < 0.01$). The findings suggest all students had improved competencies after the Pediatric IPE Clerkship.

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

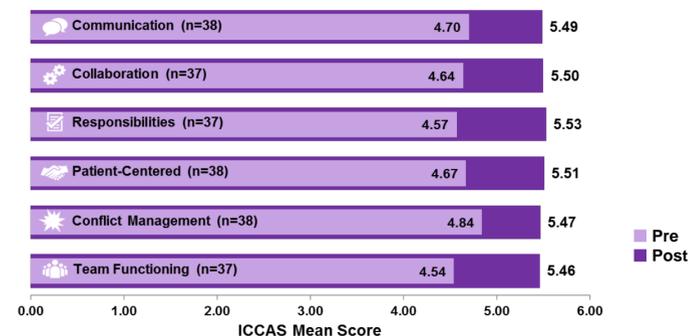


Figure 3 presents mean scores (pre and post) by setting type for all students. Students' interprofessional competencies mean score increased after the pediatric IPE clerkship in both settings. The changes in mean scores were statistically significant in each setting: primary care and dental clinic ($p < 0.01$). 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

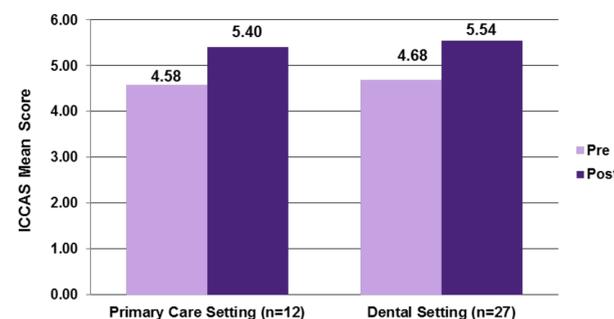


Figure 4. ICCAS Mean Pre and Post Scores by Number of Sessions

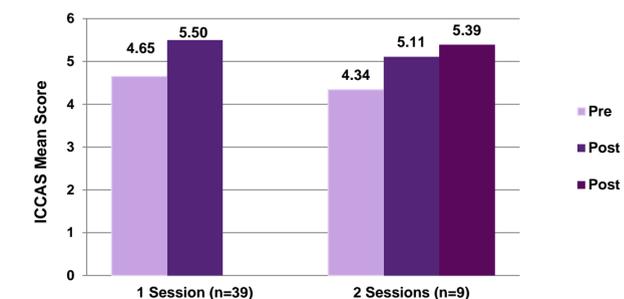


Figure 4 examines the added value of participating in two IPE sessions compared to one. This change in mean scores (from 4.65 to 5.50) is statistically significant ($p < 0.01$) for the 39 students participating in one IPE session. For the nine students that participated in two IPE sessions and completed a post survey after each session, the change in mean scores after the first session (4.34 to 5.11) is not significant, and neither is the change from Post 1 to Post 2 (5.11 to 5.39), perhaps due to the small sample size. Only the overall change (4.34 to 5.39) is significant for this group ($p < 0.01$).

Conclusions

The Pediatric Oral Health Interprofessional Clerkship was similarly effective among FNP and medical students in increasing the students' perception of their own interprofessional competencies; however, it was less possible to detect differences pre-test to post-test scores that are not due to chance among the dental students because the number of these students was fairly small. As this IPE experience will be an ongoing component of the NYU nurse practitioner, medical, and dental curricula, the sample size will increase making it more likely to detect an effect that is not due to chance in the dental student sample. It does appear that participation in multiple IP sessions is valuable for the students; however, additional research is needed to confirm this. Ultimately, the findings suggest that a clinical approach, 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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