NYU | DENTISTRY

Preparing the Future: Use of Teledentistry to Enhance Interprofessional Pediatric Dental Education

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NOHC

NYU College of Dentistry

•Largest dental school in the US (~380 per class)
•Dental hygiene program embedded within the college (Office of Allied Health)

Department of Pediatric Dentistry

•Received a HRSA Predoctoral Training Grant in Pediatric Dentistry (Grant #D8HP28495) in 2015

HRSA Predoctoral Training Grant: Preparing the Future Dental Workforce for Underserved Young Child and Adolescent Populations (Preparing the Future)

Objective 2 – Enhanced Pediatric Clinical Experiences
- DDS and DH students will participate in community-based interprofessional clinical rotations targeting underserved pediatric populations.
    - Preparing trainees for advanced roles in oral health through experiences in **teledentistry** and silver diamine fluoride (SDF)

Challenges to implementation:
- # of students
- Standardizing the experience
- Coordinating with IPE partners
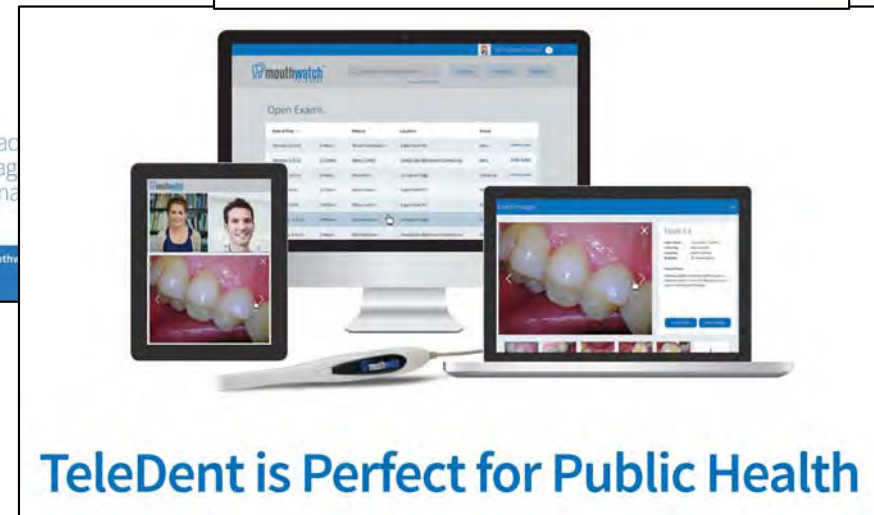- Finding an intraoral camera
- Working with EHR system

Solution:
- Develop a clinical simulation to ensure all students get exposure to teledentistry and intraoral cameras

ntraoral Cameras = $$$

MouthWatch
- Small start-up
- Inexpensive and durable camera
- Designed as patient education tool
- Launched teledentistry system, Teledent, in early 2017

TeleDent is Perfect for Public Health

The Department of Pediatric Dentistry has long standing partnerships with the NYUCD Office of Allied Health (dental hygiene program), NYU College of Nursing and the NYU Steinhardt Dietetic Masters program.

The following students rotate through pediatric dental clinical rotations each year:

- 380 Dental students per year
- 65 Dental Hygiene students
- 20-25 Pediatric Nurse Practitioner trainees
- 26-28 Nutrition students

Simulation Materials:

- 1 yr contract with MouthWatch
  - Local Teledent App
  - Cloud-based Teledent App
- 10 tablets
- 10 intraoral cameras
- Typodonts with "decayed teeth"

Pediatric Nurse Practitioner and Nutrition students:

- Lecture on teledentistry/telehealth
- Small groups rotated through hands-on exercises
  - Students were asked to capture images of "decayed teeth"
  - Group discussion on a proper referral note and how teledentistry would fit into their scope of practice

Dental Students:

Added simulation to existing D2 clinical lab course

4 sessions of ~90 students in one day

3 exercises:
- SDF application
- Teledentistry clinical case review
- Teledentistry image capture

Clinical Case Review:
- Students given login credentials for Teledent cloud app
- Asked to review images, radiographs, health history forms, and note from school-based dental hygienist
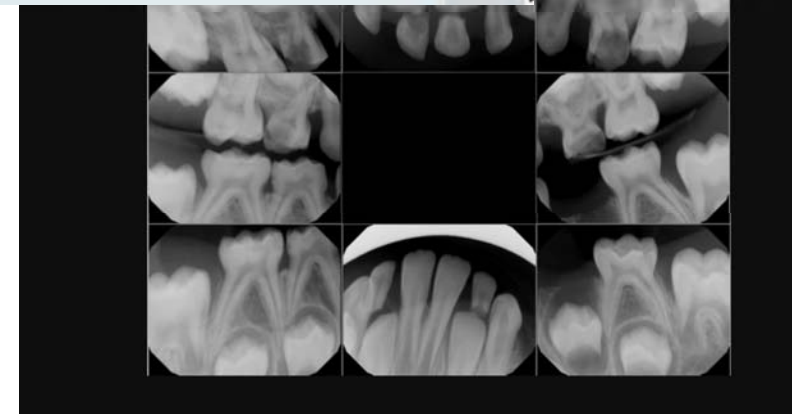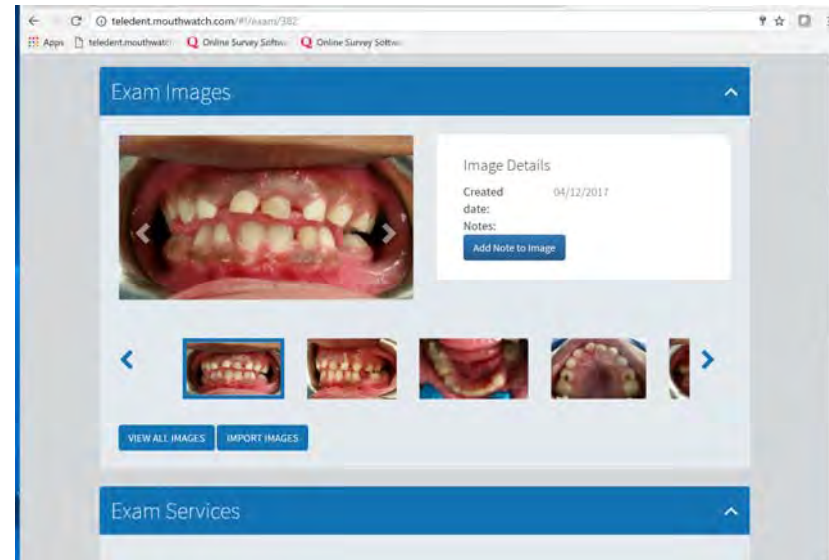- Provide a diagnosis and treatment plan

hage Capture Exercise:

10 identical typodonts, MouthWatch cameras and tablets with local Teledent app installed

Students use same login as cloud based app

Students asked to take images of "decayed teeth" and write up referral note

Prior to the lab session, how familiar were you with the following dental materials and technology?
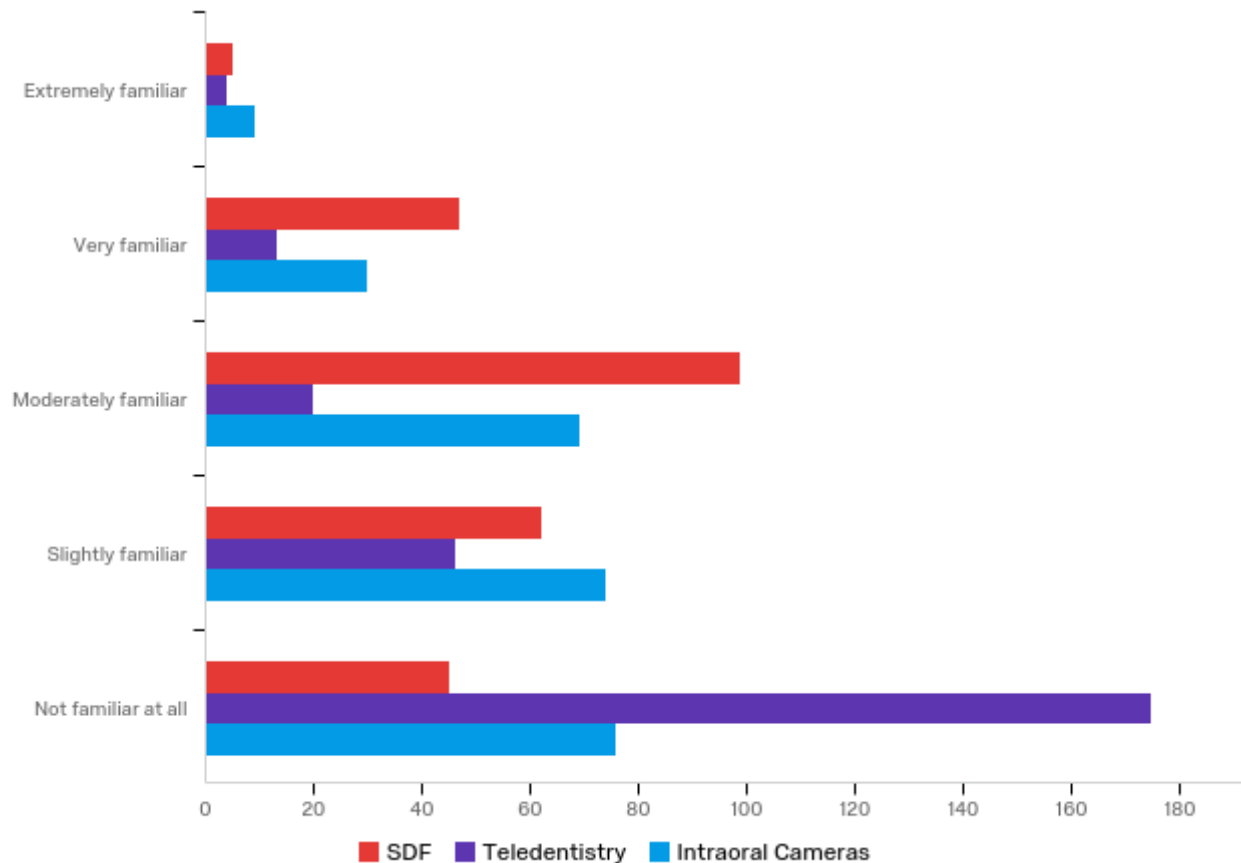
Initial feedback from DDS students:

258 responded to QI survey
Majority of students were either slightly familiar or not familiar at all with the new technology:

- 85% for teledentistry
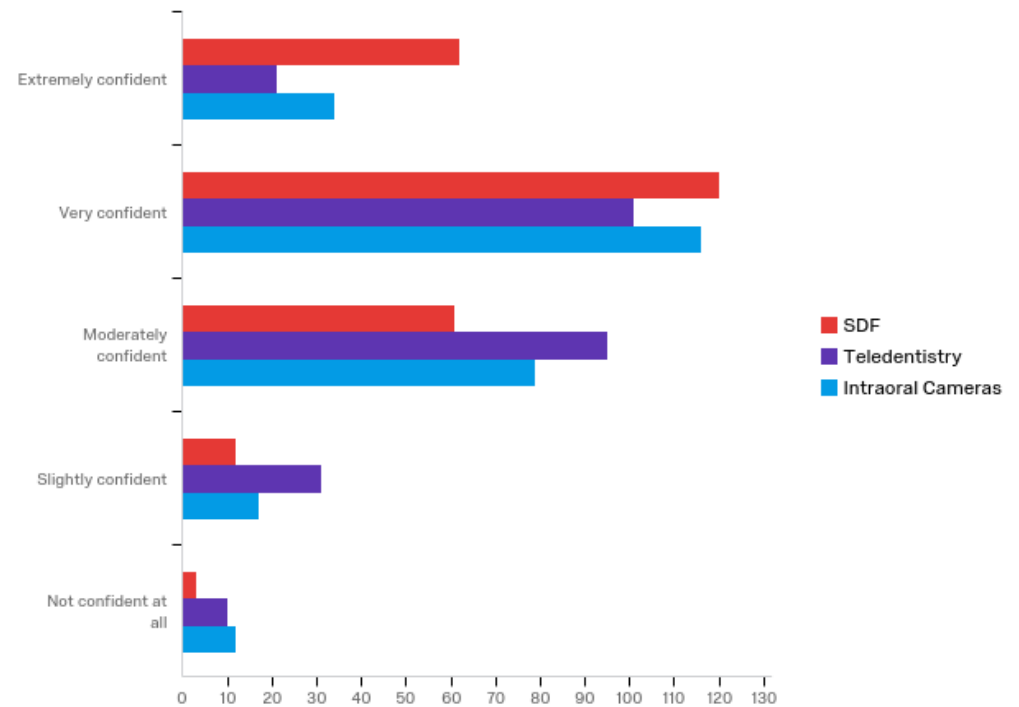- 58% for intraoral cameras

After one exposure during the lab session:

58% felt very or extremely confident about using an intraoral camera
47% felt very or extremely confident with the concept of teledentistry

Following the lab session, how confident do you feel in utilizing the following dental materials and technology?
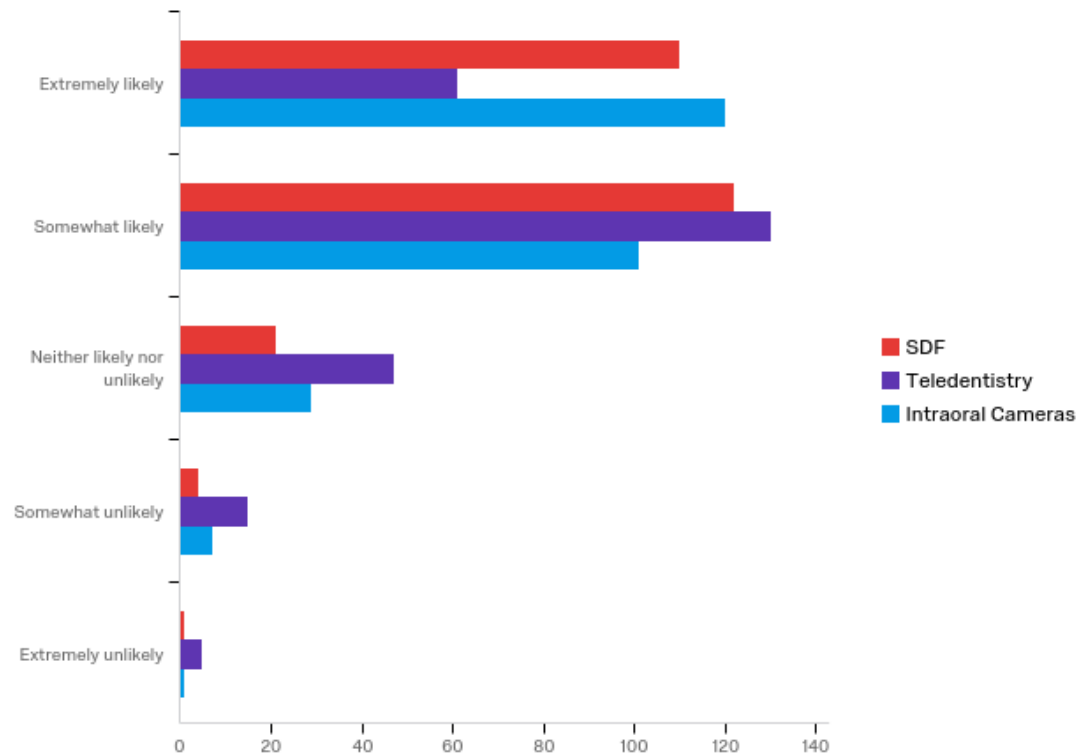
Following the lab session exercises, how likely are you to incorporate the following dental materials and technology into your future professional career?

Future use:

74% extremely or somewhat likely to use teledentistry in the future

85% extremely or somewhat likely to use intraoral cameras

Legend:
- SDF
- Teledentistry
- Intraoral Cameras

Categories (y-axis): Extremely likely, Somewhat likely, Neither likely nor unlikely, Somewhat unlikely, Extremely unlikely

x-axis: 0, 20, 40, 60, 80, 100, 120, 140

Moving forward:

- Acting on student feedback
  - Creating online module on teledentistry
  - Using grant funds to purchase more hardware (tablets and cameras)

- Moving out of the lab and into the community
  - Planning for teledentistry and intraoral camera use in community settings

Thank you!

Questions?

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