Designing and Implementing a Medical-Dental Integration Training Program for Pediatric Dental and Dental Public Health Residents in Community Settings

SA Fisher-Owens, MD,MPH, R English, DMD, L Berens, DDS, MPH, J Calvo, DDS, MPH, K Conklin, RDH, MS, KS Hoeft, PhD, MPH, C Kearns, DDS, MBA, R Stewart, DMD, MS, E Obadan-Udoh, DDS, MPH, DrMedSc

Background

- Over half of children age 8y have dental experience[1]
- Children from low-income families= 2x rate of caries compared to high-income[1]
- Greatest risk for caries in permanent tooth is caries in primary tooth
- Children see medical provider before dental provider[2]
- Medical-dental integration/oral health integration (MDI/OHI) benefits patients and system
- Many pediatric dental and dental public health residents will be called upon one day to run or facilitate MDI/OHI
- MDI/OHI is not currently taught in medical or dental schools or post-graduate programs
- Therefore, MDI/OHI training programs are needed, particularly to prepare graduates who will serve underserved populations

Benefits of MDI/OHI

- Increases access to preventive care for children, and their health
  - Reduces school absences
- Saves health care system $$
- Improves referral systems
- Increases provider satisfaction
- Can promote advocacy

Methods

Overall Combined Program Curriculum

- Quality Improvement in Dental Care Settings
- Virtual Dental Home (didactic and practicum)
- Introduction to Dental Public Health
- MDI/OHI
- For DPH residents: Topics in Pediatric Dentistry

MDI/OHI Partnerships:

- FQHCs with medical and dental services
  - Location
    - LaClinica Health Centers, largely in urban area—multiple sites, some collocated medical/dental
    - Petaluma Health Center, with 4 locations (two RHCs; two are co-located, two not)
  - Consistent, dedicated participants
    - Dental director/designee, QI director, data wizard, medical champion
  - Different approaches (dental *into* medical vs oral health in medical + referral)
- UCSF Pediatric Dentistry residents and faculty
- UCSF Dental Public Health residents and faculty
- UCSF School of Medicine Pediatrician and Oral Health Champion
- OpenSmiles Project Coordinator, RDH and facilitator of meetings

Methods, cont'd

Timeline

- July 2020: project funding & inception
- August 2020 → June 2021
  - Meeting at least monthly to establish partnerships, plan MDI/OHI
    - Interventions
    - Staffing
    - Logistics
  - Some PDSAs in planning period because of actively engaged teams
  - Learning objectives and curriculum developed
- July 2021 → May 2022: Year 1 curriculum & expectations
  - Monthly hour-long didactics on Zoom, with assigned reading
  - QI project, many based in MDI/OHI
  - MDI/OHI presentation to community partners (medical)
  - For DPH residents
    - Sitework 4hrs/week
    - Meetings with site team to review progress, evaluate data, and troubleshoot concerns, monthly
- June 2022: year 1 evaluation and improvement plan; curriculum restructuring
- July 2022 → present: year 2 curriculum & expectations
  - Didactics condensed into five 2-hour sessions, in summer/fall
  - QI project over year, some still in MDI
  - MDI presentation to community partners (medical and dental), in fall and winter to clear resident time in the spring
  - For DPH residents
    - Sitework 4hrs/week, including participating in medical huddles
    - Meetings with site team to review progress, evaluate data, and troubleshoot concerns, monthly

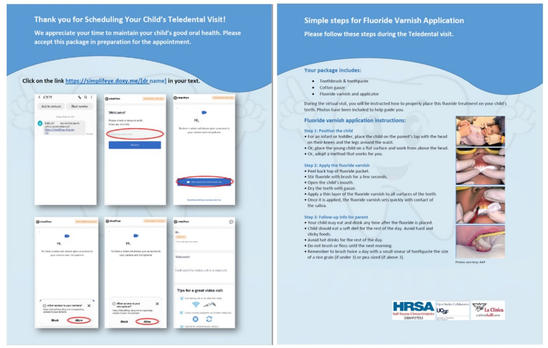
Results

OHI Curriculum

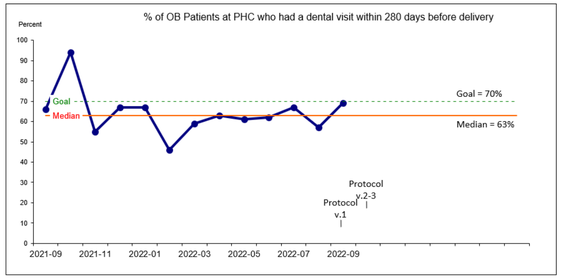
- History of FQs/CHCs
- Professional differences and interprofessional work
- Models of Medical-Dental Integration
- Analyzing a practice's readiness for change
- Teaching about the Role of Oral Health in Systemic Health, including fluoride
- Myths/truths about fluoride (FV, toothpaste, CWF, SDF)
- Provide education to team
  - WHY to do OHI, for providers+all--Health, prevention, equity
  - WHAT to do, for staff + providers
- Sealants
- Providing technical support for above goals
- How to implement CRA
- CRA alternatives
- Referral systems
- Providing technical support for above goals
- How to implement CRA
- CRA alternatives
- Referral systems
- Reiterating OH evaluation, and education
  - Developmentally
  - Trauma
- Self-management (MI)
- Managing barriers//mitigation strategies
- Clinic readiness assessment of next site
- Advocacy as a means of facilitating integration
- Dental-medical integration
- Using data to fuel continued QI

Examples of Projects

- Designing/adapting educational materials for the clinics, including posters and handouts



- Tracked QI data; led PDSA intervention cycles



Protocol	Date	Description
V.1	9/12/2022	Dental provider list who can see OB patients was sent to CPSP case manager
		Patient outreach by patient care coordinator begins - scheduling OB patients who have already seen CPSP but did not schedule a dental appointment, or those who scheduled dental
V.2	10/4/2022	appointment but had canc/ns status
V.3	10/17/2022	Dental front office scheduling script for OB patients

- Referrals to dental appointments from medical
- Scheduling of dental appointments from medical
- Show rates for scheduled appointments
- Latency of follow-up appointments
- Communication scripts
- Troubleshoot missed opportunities

Discussion

Benefits

- Amazing engagement from both sites
- Positive change observed at both sites
- Interprofessional cooperation
- Educational pieces well-received
- Nimble enough to apply learning opportunities from 1st year to redesign of second year

Challenges

- PD and DPH residents' schedule difficult to combine
- Curriculum offered as not-for-credit, to spare PD residents from having to pay for coursework, but led to mixed investment
- Different baseline knowledge of system, so some residents thought introductory material was too slow
- Different time expectations, which were spelled out initially
- Starting an in-person training program during COVID added additional barriers
- Differential expectations of time, while clearly spelled out in beginning, led to concerns about equity
- Might have benefitted from more mentors

Next Steps

- Continued evaluation
- Revised curriculum to concentrate didactics in first half of year, with projects continuing throughout the year
- Potential growth of residency program
- Consider CE version of curriculum
- Determine sustainability

Conclusions

OpenSmiles has demonstrated one can incorporate community and university teams for combined goals of training and improved service provision

References:

1. Centers for Disease Control and Prevention. Oral Health Surveillance Report: Trends in Dental Caries and Sealants, Tooth Retention, and Edentulism, United States, 1999–2004 to 2011–2016. Atlanta, GA: Centers for Disease Control and Prevention, US Dept of Health and Human Services; 2019. https://www.cdc.gov/oralhealth/publications/OHSR-2019-index.html
2. Atchinson KA, Weintraub JA, Rozier RG. Bridging the dental-medical divide. Case studies integrating oral health care and primary health care. J Am Dent Assoc 2018;149:850-858.

ACKNOWLEDGEMENT

Great appreciation to the dynamic teams at **Petaluma Health Center** (Dr. Ramona English, Dr. Megan Connick, Tiffany Jimenez, Dr. Rachel Joseph, Dr. Rebecca Katz, Laura Flores, and Dr. Catherine Dang) and **LaClinica Health Centers** (Dr. Ariane Terlet, Dr. Monica MacVane-Pearson, Dr. Jennifer Soh, and Dr. Katie D'Harlingue)!!! OHI is part of OpenSmiles, a project supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling $3.2M with 0% percentage financed with non-governmental sources. grant #D88HP37553. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. government.