A Path Forward – Recommendations for Future Oral Health Education

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• I have no relationships to disclose.

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Objectives

Upon completion of this session, participants should be able to:

1) Understand what model programs do to effectively develop and teach oral health
2) Utilize national resources for teaching oral health
3) Implement a full spectrum oral health curriculum complete with a new tool for evaluating
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Year 1 of 5 – National Surveys - Methodology

- Electronic surveys were distributed nationwide to 13 primary care disciplines
- Analyses were conducted with programs that had at least a 40% response rate (10 of 13 disciplines)
Hours of Oral Health Education

Most disciplines have 1-3 hours of OH; OB and IM more frequently report 0 hours while almost one-third of PA programs include > 9 hours.

Just having some hours quickly makes you a top program.
For most disciplines, less than 1 in 4 program directors were satisfied with the OH competence of their trainees at the time of graduation.

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Satisfaction Rate</th>
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<tbody>
<tr>
<td>Pedi NP</td>
<td>51.0%</td>
</tr>
<tr>
<td>PA Programs</td>
<td>46.3%</td>
</tr>
<tr>
<td>DO Schools</td>
<td>41.1%</td>
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<tr>
<td>FNP</td>
<td>20.0%</td>
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<tr>
<td>Peds/Med-Peds</td>
<td>18.8%</td>
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<tr>
<td>Midwifery</td>
<td>16.9%</td>
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<tr>
<td>OB-GYN</td>
<td>15.8%</td>
</tr>
<tr>
<td>Med Schools</td>
<td>15.4%</td>
</tr>
<tr>
<td>FamMed</td>
<td>0.0%</td>
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</tbody>
</table>

*Percent of combined responses to "agree and strongly agree" in one question
OH Analysis of Relationships within Programs of Having an OH Champion and:
Satisfaction with OH Competence of Graduates, # of Hours of OH in Curriculum, and Existence of Relationship between Program and Dental School, Residency or Hygiene Program

<table>
<thead>
<tr>
<th></th>
<th>Fam Medicine</th>
<th>Peds/Med-Peds</th>
<th>Geriatric Fellowships</th>
<th>Midwifery</th>
<th>PNP</th>
<th>AGPCNP</th>
<th>FNP</th>
<th>PA Schools</th>
<th>DO Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH Champion x Satisfaction w/ OH Competence of Graduates</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>OH Champion x # Hours of OH in Curriculum</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>OH Champion x Existence of Relationship between Program and Dental School, Residency or Hygiene Program</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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* ✓ indicates a p value significance of <.05

- 4 of the 9 disciplines that had an OH champion also had significantly more satisfaction w/ OH competence of graduates
- 7 of the 9 disciplines that had an OH champion also had significantly more hours of OH in their curriculum
- 5 of the 9 disciplines that had an OH champion also had a formal relationship between the program and a dental school, residency or hygiene program
Year 2 of 5 – Qualitative Interviews of Programs/School with Robust Curricula

• 31 primary care training programs that had self-identified as “best practice” oral health programs participated in a 1-hour interview (inclusive of all 13 primary care disciplines)

• Qualitative analysis of the 31 interview transcripts
Year 2 – Quotes

- On borrowing material for others: “There is no sense in reinventing the wheel when the wheel is like a Cadillac.” (referring to the SFL curriculum) – PA Assistant Program Director

- On Barriers: “The biggest barrier is always competing priorities. To get to a point where our faculty felt oral health had the same parity as many other things we teach . . . , it definitely took some influence-building and knowledge-building on everybody’s part.” - Fam Med Res Dir (FMDR)

- Lessons Learned: “It ought to be right in the mix with everything else and be treated as business as usual rather than a special thing. If we get to that place, we’ve succeeded.” - FMDR
Lessons learned – Year 2:

• Need a **champion** – passion; some funding; energy > expertise
• Need some **leadership buy-in**; the higher up, the better
• **Maximize local resources** by working with academic or community-based local dental professionals; e.g., dentist, dental hygienist
• **Maximize regional resources**; e.g., oral health coalitions, AHEC
• **Maximize national resources**; e.g., Smiles for Life
• Does not take long to achieve success; oral health curricula can be **accomplished with limited or no funding**
• **Missing components** in many programs – **OH objectives** tied into broader learning objectives; **evaluation** – again, borrow these!
Champion Grooming

- AAP state champions
- PA model – micro grants
- School/Professional organization leader development
- HRSA faculty grants
Leadership Influencing

• Show the numbers
  – Nationally
  – locally

• Tell the stories

• Link to medical issues

• Chance for IPE
Finding Local Resources

- Oral Health Coalition
- District Dental & Dental Hygiene Societies
- Dental schools/programs
- Community dental providers
- AHEC, DPH, ...
Promoting National Resources

- Smiles For Life
  - Examples on site
- AAP – PACT
- MedEdPortal
- prenatal Oral Health Program (pOHP)
- Tiny Teeth - AAP
Other resources - DynaMed

- Oral Health
  - Disorders of Teeth and Gingiva
    - Infections Affecting the Oral Cavity
    - Oral Manifestations of Systemic Disease
    - Malignancy
    - Other Conditions
  - Acute Apical Dental Abscess
  - Acute Necrotizing Ulcerative Gingivitis
  - Dental Caries
    - Fluoride for Prevention of Dental Caries
    - Methamphetamine-Induced Caries (Meth Mouth)
    - Prevention and Management of Dental Caries
Other resources - Epocrates
USMLE Step 1 Review – Oral Health
Funding – local and national

- Dentaquest
- HRSA
- Delta Dental
- Arcora
- Internal grants
- Smiles for Life
Approach to Ideal OH Curriculum

- Spiral Curriculum
- Oral Health Day
- Oral Health Week
- Electives — 1 day, 1 week, 1 month
- IPE/IPP
- Student project(s)
Another risk factor? Periodontitis and CVD

- Meta-analysis of longitudinal studies show that periodontitis independently confers excess risk for increased morbidity and mortality due to CVD
- The increase risk ranges from 20% (OR 1.2) to 180% (OR 2.8)
- More intervention studies needed
- Treatment – flossing, dental care including deep root planing and scaling

Mechanism of Action:
- Bacteria of periodontitis cause inflammatory cytokines to increase systemically, > injuring the vascular endothelium

Bulimia

Facial Pain-Differential Diagnosis

- Trigeminal Neuralgia pain does not last for longer than 2 minutes and is often unilateral
- Temporomandibular Pain presents with clicking of TMJ and limited range of motion of the jaw
- Dental Pain (examples: cavities, cracked tooth, dental trauma, abscess): This pain is more localized, persistent, cold and hot foods, eating, check for visible pathology on oral exam
- Myofascial Pain (local/regional muscle pain), trigger points
- Sinusitis-persistence of pain and associated nasal symptoms

Findings:
- Salivary gland swelling
- Chronic sore throat
- Gingivitis and palate inflammation
- Tooth enamel erosion and decay
- Teeth sensitivity to temperature
- Molars can reduce in size/tooth loss
- Russel’s sign on back of hands

Pathophysiology:
- Gastric acid irritating and eroding enamel and tissue

Management:
- Behavioral
- Post vomit neutralize acid rinses (baking soda and water)
- Fluoride rinse and varnish; dental care

S. Viridans and Subacute Bacterial Endocarditis

- Number one pathogenic cause of infective endocarditis of dental origin
- Two common strains found in oral flora:
  - S. Sanguis and S. Mutans
Evaluation

• Smiles for Life examples
  – OSCEs
• CIPCOH tool