Oral Health & Primary Care Cooperative Education Model

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Learning Outcomes

• Describe a cooperative education model for integrating oral health and primary care.

• Apply innovative interprofessional practice and education strategies to promote oral health integration.
Health Professions

Applied Psychology
Audiology
Health Informatics
Health Sciences
Physical Therapy
Speech-language Pathology
Physician Assistant Studies
Public Health
Innovations in Oral Health: Technology, Instruction, Practice, Service

Innovations in Oral Health has been established at Northeastern University to advance innovations in research, education and practice for optimal oral health.
Improve Workforce Training and Capacity Building

-underserved areas
-Preventive medicine
-Public health
-Behavioral health
-Oral health
-Team management of chronic disease
Co-operative Education

Grow. Adapt. Thrive.

Our distinctive educational approach integrates rigorous classroom study with real world experiences to create a powerful way to learn. As a result, Northeastern’s graduates excel at managing their lives and careers, and contribute to the world.

Learn More

http://www.northeastern.edu/coop/
Welcome to the PCMH Resource Center

The Agency for Healthcare Research and Quality recognizes that revitalizing the nation’s primary care system is foundational to achieving high-quality, accessible, efficient health care for all Americans. The primary care medical home, also referred to as the patient centered medical home (PCMH), advanced primary care, and the healthcare home, is a promising model for transforming the organization and delivery of primary care. This website provides policymakers and researchers with access to evidence-based resources about the medical home and its potential to transform primary care and improve the quality, safety, efficiency, and effectiveness of U.S. health care.
Federally Qualified Health Center with a level-3 Patient Centered Medical Home
BHCHP Mission

Access to the highest quality health care for Boston’s homeless men, women & children

Photos courtesy of J O’Connell
Care Model

Patient

Collaboration

Quality

Comprehensive

Cultural Competence
Homeless Health

- Acute & chronic health conditions
- Morbidity & mortality
- Access to care
- Premature aging
- Delayed treatment & reliance on ED
- Trust & hope
Oral Health in the Homeless Population

- Homeless people have poorer oral health than the general population. (IOM, 2011)
- Dental care is the most commonly reported unmet need. (Baggett et al., 2010)
- Conditions are more often severe when diagnosed
- More likely to engage in behaviors detrimental to oral health such as:
  - Smoking and using other types of tobacco products (Conte et al., 2006; Gibson et al., 2003),
  - Heavy alcohol use (Gibson et al., 2003), and substance abuse (Chi and Milgrom, 2008).
12,500 patients/year

104-bed medical respite unit

2 Teaching Hospitals

50
  – Shelters
  – Treatment programs
  – Soup kitchens

Dental sees less than 25% of the overall patient population.

“How do we provide oral health care to the rest of our patients?”
- Dr. Colleen Anderson,
  Dentist at BHCHP
Medical and Dental Integration

Multidisciplinary Integration Team

Goal: Increase access to oral health care for primary care patients and family teams

• Oral exams
• Oral health education
• Identify acute conditions for immediate referral
• Connect patients with dental providers
Initial Integration Steps
Changes to EMR medical notes

Review of Systems

Mouth

Patient complains of:
- mouth pain: recent/current
- jaw pain
- loose teeth
- pain when chewing
- bleeding gums
- mouth sores

Patient denies:
- mouth pain: recent/current
- jaw pain
- loose teeth
- pain when chewing
- bleeding gums
- mouth sores

Observation for “ROS Mouth”: 
Integration Efforts

• Oral health fairs at family team sites
• Resources for staff and patients
• Events to raise staff awareness and encourage oral exams
• Risk assessments, patient education, and care coordination within our medical clinic and family team clinics
Smiles for Life Oral Health Curriculum

Smiles for Life: A National Oral Health Curriculum

Smiles for Life is the nation's only comprehensive oral health curriculum. Developed by the Society of Teachers of Family Medicine Group on Oral Health and now in its third edition, this curriculum is designed to enhance the role of primary care clinicians in the promotion of oral health for all age groups through the development and dissemination of high-quality educational resources.

For Individual Clinicians

We've made it easy for individual physicians, physician assistants, nurse practitioners, students, and other clinicians to access the curriculum and learn on their own time and at their own pace. Each of the courses is available online. Free CME credit is available.

For Educators

The curriculum is available in a presentation format easily implemented in an academic setting. Included is a comprehensive set of educational objectives based on the Accreditation Council for Graduate Medical Education (ACGME) competencies, test questions, resources for further learning, oral health web links, an implementation guide, and detailed outlines of the modules.

Northeastern University

www.smilesforlifeoralhealth.org
Risk Assessment
Oral Exam
Patient Education
Survey Tools
Collaborate with Medical Providers
Fluoride Varnish
Outreach
Referral Resources
Schedule Appointments
Workshops

1. Teamwork & Communication
2. Risk Assessment
3. The Oral Exam
4. Acute Dental Problems
5. Fluoride Varnish
Workshop 1:
Teamwork & Communication

Communication
Team Structure

TeamSTEPPS® Dental Module

The TeamSTEPPS Dental Module consists of videos showing how dental staff who perform oral surgery and general dentistry can use TeamSTEPPS®’s teamwork, leadership, mutual support, communication, and situation monitoring skills in their practices.

Module Materials

These videos show how dental staff who perform oral surgery and general dentistry can use TeamSTEPPS®’s teamwork, leadership, mutual support, communication, and situation monitoring skills in their practices.

- Dental Office: Lost Opportunity (Flash video, 4 min., 43 sec.; 18.9 MB)
- Dental Office: Opportunity Won (Flash video, 4 min., 21 sec.; 17.3 MB)
- Oral Surgery: Lost Opportunity (Flash video, 4 min., 9 sec.; 16.8 MB)
- Oral Surgery: Opportunity Won (Flash video, 5 min., 38 sec.; 22.5 MB)

Download Dental Module videos for local use (Zip file, 88.5 MB). Select the link, then choose Save to save the file to your computer. This file contains these four videos in Windows Media format. They may be unzipped and played without an Internet connection.
TeamSTEPPS®
Primary Care Module

TeamSTEPPS Primary Care Version

The Primary Care version of TeamSTEPPS adapts the core concepts of the TeamSTEPPS program to reflect the environment of primary care office-based teams. The examples, discussions, and exercises are tailored to the primary care environment.

For questions on how to use or implement this module or to offer feedback, call Richard Ricciardi, Ph.D., N.P., at 301-427-1578 or send an Email to richard.ricciardi@ahrq.hhs.gov.

Materials

This TeamSTEPPS® module may undergo refinements while it is being tested in primary care practices as part of a project that runs through 2015. These files are offered as a courtesy to medical offices that wish to apply TeamSTEPPS® principles in their practice settings.

Participant Handouts

- Instructor Guide  (PDF Version [243.5 KB], Word Version [153.15 KB])
- Your Expectations for This Training (PDF Version [37.5 KB])
- Objectives of TeamSTEPPS Training for Primary Care Office-Based Teams (PDF Version [43.66 KB])
- Sample Agenda (PDF Version [29.7 KB])
- Thinking about Your Primary Care Office-Based Team (PDF Version [48.42 KB])
- Video Reflections (PDF Version [40.24 KB])
- When and Why To Use A Huddle (PDF Version [30.22 KB])
- Cross-Monitoring (PDF Version [33.89 KB])
- Mutual Support Behaviors (PDF Version [33.85 KB])
- Creating A Handoff Checklist (PDF Version [35.67 KB])

Slide Presentations
Workshop 2: Risk Assessment

Smiles for Life Course 6: Caries Risk Assessment

• Discuss the etiology of early childhood caries (ECC).
• Assess a child's risk of developing ECC.
• Recognize the various stages of ECC.
Workshop 2: Risk Assessment

Smiles for Life Course 3: Adult Oral Health & Disease

• Recognize adult caries and periodontal disease and refer patients for appropriate treatment.
• Learn how aging and chronic medical conditions affect oral health.
Case-based learning

Pedo  Adult  Geriatric
## Risk Assessment Tools

**Caries Risk Assessment Form (Age >6)**

**Patient Name:**

**Birth Date:**

**Age:**

### Contributing Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Low Risk</th>
<th>Moderate Risk</th>
<th>High Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluoride Exposure (through drinking water, supplements, professional applications, topical)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Surgery/Head or Neck (including pain, xerostomia, and healing)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Xerostomia (oral dryness)</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Osteoporosis (including jawbone)</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Cancer (including leukemia, lymphoma, or other)</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Medications that reduce saliva flow</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>General Health Conditions (developmental, physical, mental disabilities)</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Dental Caries</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Other Conditions (including age-appropriate oral care)</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

### General Health Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Yes / No</th>
<th>Yes / No</th>
<th>Yes / No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco Use</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Alcohol Use</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>History of Periodontal Disease</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>History of Bone Loss</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>History of Systemic Disease</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>History of Immunodeficiency</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>History of Other Health Conditions (developmental, physical, mental)</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

### Clinical Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Yes / No</th>
<th>Yes / No</th>
<th>Yes / No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tooth Loss</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Buccal Caries</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Lingual Caries</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Interproximal Caries</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Gingival Recession</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Sensitivity to Cold</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Sensitivity to Flourine</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Sensitivity to Xylitol</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

### Overall assessment of dental caries risk:

- **Low**
- **Moderate**
- **High**
Workshop 3: The Oral Exam

Smiles for Life Course 7: The Oral Examination

• Review basic oral anatomy and characteristics of healthy teeth.

• Use proper equipment to perform an oral exam.

• Perform a consistent, thorough oral, face, and neck examination of children and adults.

• Understand some of the differences between normal and abnormal findings.
Peer-to-Peer Learning
Workshop 4: Acute Dental Problems

Smiles for Life Course 4: Acute Dental Problems

• Review common acute dental problems.
• Diagnose, initially manage, and appropriately refer:
  – Oral pain, oral infections, dental trauma
Case-based Learning

Trauma
- Tooth avulsion

Infection
- Abscess

Pain
- Dry Socket
Workshop 4: Fluoride Varnish & Counseling

Smiles for Life Course 6: Caries Risk Assessment, Fluoride Varnish & Counseling

• Discuss the effects, sources, benefits, and safe use of fluoride.
• Describe the benefits and indications for fluoride varnish.
• Demonstrate the application of fluoride varnish.
Peer-to-Peer Learning
Evaluation Methods

- TeamSTEPPS® Teamwork Attitudes Questionnaire
- Oral Health Survey
- Workshop Evaluation
- BHCHP Outcome Data
- Student Reflections
**Knowledge** - How would you rate the extent of your professional knowledge about the following oral health topics? (1=little to no knowledge, 2= some knowledge, 3= extensive knowledge)

<table>
<thead>
<tr>
<th>Question</th>
<th>Little to No Knowledge Percentage (Frequency)</th>
<th>Some Knowledge Percentage (Frequency)</th>
<th>Extensive Knowledge Percentage (Frequency)</th>
<th>Mean (STD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact of oral health on nutrition. Pre-Assessment</td>
<td>60.0% (3) 0% (0)</td>
<td>20.0% (1) 20.0% (1)</td>
<td>20.0% (1) 80.0% (4)</td>
<td>1.6 (0.89) 2.80 (0.45)</td>
</tr>
<tr>
<td>Post-Assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caries (tooth decay) Pre-Assessment</td>
<td>0% (0)</td>
<td>100% (5)</td>
<td>0% (0) 60.0% (3)</td>
<td>2.00 (0.00) 2.60 (0.55)</td>
</tr>
<tr>
<td>Post-Assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral/dental trauma from injuries Pre-Assessment</td>
<td>40.0% (2) 0% (0)</td>
<td>60.0% (3)</td>
<td>0% (0) 60.0% (3)</td>
<td>1.60 (0.55) 2.60 (0.55)</td>
</tr>
<tr>
<td>Post-Assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship between oral and systemic health. Pre-Assessment</td>
<td>60.0% (3) 0% (0)</td>
<td>40.0% (2) 60.0% (3)</td>
<td>0% (0) 40.0% (2)</td>
<td>1.40 (0.55) 2.40 (0.55)</td>
</tr>
</tbody>
</table>
**Attitudes-** To what extent do you agree or disagree with the following statements about integrating oral health and primary care practice? (Likert scale: 1-Strongly disagree; 5-Strongly agree)

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly disagree (Frequency)</th>
<th>Disagree (Frequency)</th>
<th>Neither Agree or Disagree (Frequency)</th>
<th>Agree (Frequency)</th>
<th>Strongly Agree (Frequency)</th>
<th>Mean (STD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary care clinicians should incorporate oral health clinical competencies in patient care.</td>
<td>0% (0)</td>
<td>0% (0)</td>
<td>0% (0)</td>
<td>40.0% (2)</td>
<td>60.0% (3)</td>
<td>4.6 (0.55)</td>
</tr>
<tr>
<td><strong>Pre-Assessment</strong></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td><strong>Post-Assessment</strong></td>
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</tr>
<tr>
<td>Health care systems should engage and educate consumers about oral health in primary care as an expected standard of interprofessional practice.</td>
<td>0% (0)</td>
<td>0% (0)</td>
<td>0% (0)</td>
<td>60.0% (3)</td>
<td>40.0% (2)</td>
<td>4.4 (0.55)</td>
</tr>
<tr>
<td><strong>Pre-Assessment</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Post-Assessment</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Accreditation and certification bodies should integrate oral health clinical competencies into primary care practitioner standards.</td>
<td>0% (0)</td>
<td>20.0% (1)</td>
<td>0% (0)</td>
<td>60.0% (3)</td>
<td>20.0% (1)</td>
<td>3.8 (1.10)</td>
</tr>
<tr>
<td><strong>Pre-Assessment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Post-Assessment</strong></td>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>
**Skills** - How well do you think your education and practice have prepared you in the following oral health clinical skills? (1=not at all prepared, 2= somewhat prepared, 3= very prepared)

<table>
<thead>
<tr>
<th>Question</th>
<th>Not at all prepared (Frequency)</th>
<th>Somewhat prepared (Frequency)</th>
<th>Very prepared (Frequency)</th>
<th>Mean (STD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide targeted patient education about the importance of oral health and how to maintain good oral health, which considers oral health literacy, nutrition, and patient’s perceived oral health barriers. Pre-Assessment Post-Assessment</td>
<td>40.0% (2) 0% (0)</td>
<td>40.0% (2) 60.0% (3)</td>
<td>20.0% (1) 60.0% (3)</td>
<td>1.80 (0.84) 2.60 (0.55)</td>
</tr>
<tr>
<td>Identify patient-specific, oral conditions and diseases that impact overall health. Pre-Assessment Post-Assessment</td>
<td>40.0% (2) 0% (0)</td>
<td>60.0% (3) 60.0% (3)</td>
<td>0% (0) 60.0% (3)</td>
<td>1.60 (0.55) 2.60 (0.55)</td>
</tr>
<tr>
<td>Provide appropriate referrals to dental professionals. Pre-Assessment Post-Assessment</td>
<td>40.0% (2) 0% (0)</td>
<td>60.0% (3) 60.0% (3)</td>
<td>0% (0) 60.0% (3)</td>
<td>1.60 (0.55) 2.60 (0.55)</td>
</tr>
<tr>
<td>Relationship between oral and systemic health. Pre-Assessment Post-Assessment</td>
<td>60.0% (3) 0% (0)</td>
<td>40.0% (2) 60.0% (3)</td>
<td>0% (0) 40.0% (2)</td>
<td>1.40 (0.55) 2.40 (0.55)</td>
</tr>
</tbody>
</table>
BHCHP Outcome Data

- 94 Patient Encounters
- 110 Dental Appointments
- 24 Patient Referrals
- 2 Health Fairs
Outcomes

Outcome 2: Annual JYP Oral Health Exams

- Nov’14: 14%
- Dec’14: 14%
- Jan’15: 12%
- Feb’15: 11%
- Mar’15: 11%
- Apr’15: 17%
- May’15: 23%
- Jun ‘15: 28%
Outcome 1: JYP Oral Health Exams in Medical

- Nov’14: 1%
- Dec’14: 2%
- Jan’15: 1%
- Feb’15: 1%
- Mar’15: 13%
- Apr’15: 17%
- May’15: 20%
- Jun’15: 13%
Challenges

- Limited resources
- Skill gap
- Competing priorities
- Referrals
Conclusion

• Safety net settings should partner with academic institutions to incorporate students as change agents in your environment to meet the needs of vulnerable and underserved populations.
Acknowledgements

• Pooja Bhalla, MSN, RN, Chief Operating Officer, BHCHP
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• Jacki Diani, MEd, Senior Coop Officer, Northeastern University
The DentaQuest Foundation is committed to optimal oral health for all Americans through its support of prevention and access to affordable care, and through its partnerships with funders, policymakers and community leaders. For more information, please visit dentaquestfoundation.org.
References

Thank you

QUESTIONS?

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j.holloman@neu.edu