Assessing Attributes of an Oral Health Literate Organization: A Feasibility Study

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OBJECTIVES

1. Explain the initial process used to determine the level of commitment to oral health literacy in the dental school.
2. Describe the steps for improving the institutional literacy levels for future enhancement of oral health literacy.
3. Analyze the lessons learned from the project to date.
4. Identify ideas/suggestions for improving the process.

All speakers agree that neither they nor members of their immediate family have any financial relationships with commercial entities that may be relevant to their presentation.
Oral Health and Disease

- 2 Major Oral Diseases
  - Caries (cavities)
- Soft Tissue Diseases
  - Periodontal Diseases
  - Mucosal

Oral-Systemic Diseases

- Altered Microbiota
- Increased Pathogenicity
- Altered Inflammation
- Atherosclerotic changes
- Coronary Artery Disease (MI)
- Endothelium & altered vascular responses
- Translocated Infection
- Systemic Inflammatory Mediators
- PTB/IUGR
- CVD
- Diabetes

Systemic Diseases LINKED to Oral Disease

- Aspiration Pneumonia
- Cardiovascular Disease and Ischemic Stroke
- Diabetes
- Dementia
Oral Health Literacy Framework

- Oral Health Literacy
- Culture and Society
- Education System
- Oral Health Outcomes and Costs
- Health System
- Oral Health Literacy Framework

Health Literacy Concept

- 2008: Health Resources and Services Administration (HRSA) asked the Institute of Medicine (IOM) to assess the current oral health care system
- Goal: Improve oral health care in America
- Outcome: Ten Attributes of a Health Literate Organization

Source: Foundations of a Health Literate Organization
Ten Attributes of Health Literate Health Care Organizations, IOM, 2012
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Logic Model  

Purpose

• Assess, evaluate and improve oral health literacy in a dental school setting.
• Focus...Attribute #1. A health literate health care organization has leadership that makes health literacy integral to its mission, structure, and operations

PURPOSE

1. Established the level of commitment to oral health literacy (OHL) in the dental school by conducting an institutional audit of all institutional publications and processes (both electronically and manually) using a key words search.
2. Results of the audit were then analyzed to evaluate the degree of institutional focus associated with existing elements of OHL.
Methods: STEP 1

• Assess baseline OHL knowledge using an electronic oral health literacy assessment tool (previously validated) with:
  • Incoming dental students at orientation (Fall 2013)
  • Dental school staff at annual faculty/staff retreat (Winter 2014)
  • Dental school patients (Summer and Fall 2014)


Methods: STEP 2

• Develop next steps for intended changes of measurable related behaviors to enhance optimum institutional literacy.
  • Attribute 2: Integrates health literacy into planning, evaluation measures, patient safety, and quality improvement
  • Lessons Learned from Steps 1 and 2 focused on Attribute 1.

Methods: STEP 3 (Next Step)

• Continue audit of patient management system (axiUm) for related, specified terms using Information Technology staff and resources.
  • Integrate Meaningful Use criteria with OHL
  • Evaluate axiUm (Electronic Health Records) forms/consents to ensure consistency in integration of OHL with patient records/outcomes
  • Develop measurable outcome measures aligned with the OHL variables that relate to overall health of SDM patients
Results Step 1

- **Institutional Audit:**
  - Systematic search of specified terms relative to oral health literacy (example terms: literacy, oral health, oral health literacy, health literacy, oral health knowledge, oral health ideas, oral health instruction, oral health education, patient education, patient care, flossing, toothbrushing, prevention, preventive)
  - Systematic search of patient management system for related, specified terms using Information Technology staff and resources.

Results - Step 1

**INSTITUTIONAL DATA SOURCES**

- Student Manual (2010-2014): 94 terms (Patient Care, Oral Health)
- 5-Year Strategic Plan: 2 terms (Oral Health)
- Course Syllabi (Summer 2013-Spring 2014): 222 terms (Patient Care, Oral Health, Prevention/Preventive)
- SDM Competency Document: 1 term (Patient Care)
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Results - Step 1

- Evaluation of institutional assessment/lessons learned
- Gaps in OHL terms in syllabi and handbooks
- Gaps in OHL terms across semesters (i.e., Fall, Spring, Summer)
- Gaps in OHL terms in strategic plan

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Results - Step 1 Moving Forward

- Align curriculum to ensure consistency across all semesters and all years (1st-4th year) and within the 5-year strategic plan
- Evaluate syllabi of advanced programs (orthodontic program, pediatric dentistry program)
- Appoint designee to evaluate the model every 1-2 years
- Establish OHL training for new course directors
- Align OHL terms with national published reports (i.e., IOM reports)

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Results Step 2: Demographics

<table>
<thead>
<tr>
<th></th>
<th>Students</th>
<th>Staff</th>
<th>Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>47 (57.3%)</td>
<td>3 (10.0%)</td>
<td>4 (33.3%)</td>
</tr>
<tr>
<td>Female</td>
<td>35 (42.7%)</td>
<td>28 (93.3%)</td>
<td>8 (66.7%)</td>
</tr>
<tr>
<td>Education Level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than High School</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>High School</td>
<td>0 (0%)</td>
<td>3 (10.0%)</td>
<td>2 (16.7%)</td>
</tr>
<tr>
<td>Some college/university</td>
<td>0 (0%)</td>
<td>18 (60.0%)</td>
<td>6 (50.0%)</td>
</tr>
<tr>
<td>College/University graduate</td>
<td>83 (100%)</td>
<td>9 (30.0%)</td>
<td>2 (16.7%)</td>
</tr>
<tr>
<td>How often visited the dentist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Every 3-6 months</td>
<td>49 (59.0%)</td>
<td>17 (56.7%)</td>
<td>1 (0.8%)</td>
</tr>
<tr>
<td>Every year</td>
<td>23 (27.7%)</td>
<td>12 (40.0%)</td>
<td>2 (16.7%)</td>
</tr>
<tr>
<td>Every 2-3 years</td>
<td>7 (8.4%)</td>
<td>0 (0%)</td>
<td>2 (16.7%)</td>
</tr>
<tr>
<td>When there is pain only</td>
<td>4 (4.8%)</td>
<td>1 (3.3%)</td>
<td>7 (58.3%)</td>
</tr>
</tbody>
</table>
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**Results Step 2: Oral Health Literacy Assessment Scores**

<table>
<thead>
<tr>
<th></th>
<th>Students Mean (SE)</th>
<th>Staff  Mean (SE)</th>
<th>Patients Mean (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part 1</td>
<td>5.89 (0.2)</td>
<td>6.00 (0.2)</td>
<td>4.85 (0.4)</td>
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<tr>
<td>Part 2</td>
<td>17.84 (0.3)</td>
<td>17.77 (0.4)</td>
<td>15.85 (0.3)</td>
</tr>
<tr>
<td>Part 3</td>
<td>6.94 (0.16)</td>
<td>7.29 (0.14)</td>
<td>5.84 (0.2)</td>
</tr>
<tr>
<td>Total</td>
<td>30.67 (0.5)</td>
<td>31.06 (0.5)</td>
<td>26.9 (0.4)</td>
</tr>
</tbody>
</table>

Note: Perfect Score = 37

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**STEP 3 (Next Step)**

- Develop next steps essential for intended changes of measurable related behaviors to enhance optimum institutional OHL.
- Continue focus on Attribute 2 (next step): Integrates health literacy into planning, evaluation measures, patient safety, and quality improvement.

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**Potential Sources of Outcome Variables**

- Untreated decay
- Caries risk assessment (low, moderate, high)
- Nutritional risk assessment
- Periodontal risk assessment (early onset, moderate, severe)
- Behavior modification (oral health, tobacco)
- Control of chronic disease (e.g., diabetes)
- Align SDM metrics with national benchmarks when available
Evidence of Institutional Effectiveness in OHL

- Identified trained staff conduct institutional assessment to maintain consistency
- Clearinghouse of all information for institution
- Annual review of information within institution (e.g., curriculum committee, health and safety committee, quality assurance committee)
- EHR to monitor patient outcomes
- Integrated research projects with other institutions (Public Health, Dental, Medical)

Diabetic patients with severe gum disease have more trouble controlling their blood sugar levels (6X risk)

So this can affect this


Future Steps

- Publish model for assessment and for planning translation and integration of OHL into the institution that includes a timeline for follow-up assessment for continuing improvement.
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Where Would You Look?

• Where might you find evidence of OHL within your systems?
• What can you do to integrate this process into your schools/colleges?

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References


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Thank You!

Thank you to the American Dental Education Association for their support of this project.

QUESTIONS