Pediatric Obesity-related Curricular Content and Training in Dental & Dental Hygiene Schools:

Systematic Review & Recommendations

Session II: What We Can Do
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Improving children’s oral health in an equitable and effective manner is a laudable goal—one that is arguably unattainable by the dental profession alone.

Introduction

Diet/nutrition* represents a strong, modifiable, proximal risk factor for dental caries in early childhood.
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* is also linked to pediatric overweight/obesity
Oral health professionals are well-positioned to help address the nutrition component underlying dental caries and obesity

- The oral health care team has not yet assumed an active role in addressing the pediatric obesity issue
- Major barriers: lack of relevant education & training
[1] What are dental and dental hygiene schools doing to promote knowledge and skills related to addressing childhood obesity and to reduce consumption of sugar-sweetened beverages?

[2] What else could these schools do to better equip future oral health professionals to address childhood obesity and to reduce consumption of sugar-sweetened beverages?
[1] **Systematic review**: PubMed, Scopus, Education Full Text and ERIC databases were searched on 4/20/2016 for articles published in English

[2] **Scoping-type review**: papers that were either in the search results or were manually-identified from reference lists, presenting or discussing potential educational approaches, methodologies or curricula
Results

**Hisaw et al., 2009**

**Population:** 135 2nd-year pediatric dentistry residents, in 41 U.S. programs

**Methods:** 17-item questionnaire, mailed

**Outcomes:** Receipt of obesity-related curriculum, experiences, perceptions

**Cardinal findings:**

1. Topic is currently inadequately addressed
2. The current curriculum is varied and has important deficiencies
3. Formal training associated with preparedness to manage obese patients
4. Accreditation guidelines with competency-based standards addressing obesity and oral health care should be developed
Results

**Wyne et al., 2013**

**Population:** 260 4th, 5th-year dental students and interns, in a Saudi Arabian School of Dentistry

**Methods:** 7-item questionnaire

**Outcomes:** Knowledge and beliefs regarding overweight/obesity

**Cardinal findings:**
1. About 1/3 of respondents rated their knowledge of pediatric overweight/obesity as fair/poor
2. One-third identified BMI as the best method to detect overweight/obesity
3. Dental students may benefit from training in identification/prevention of overweight/obesity particularly in children

Results

**More et al., 2005**

**Population:** Dietetic interns, pediatric dentistry residents at NYU’s College of Dentistry

**Methods:** Program description and evaluation; multiple data sources

**Outcomes:** Program development and demonstration; establishment of dietician-dentist collaboration in the educational environment

**Cardinal findings:**
1. The program was received favorably by both pediatric dentistry residents and dietetic interns
2. The collaboration created linkage between clinical dietitians and the health-promotion activity of dentists and proved to be a valuable and positive interdisciplinary learning experience
Discussion

Limitations:
- Small number of reports, weak level of evidence
- Most of this information arguably not in the peer-reviewed literature
- Isolated efforts in some institutions; development & introduction of formal training in diet/nutrition in dental and allied health education are in their infancy

In stark contrast with:
- the universal recognition of the importance of overweight/obesity and SSBs consumption in the oral health domain
- the pivotal role oral health professionals can play
Discussion

* Training curricula & educational modules to address pediatric overweight/obesity and nutritional risk factors exist in medical education

* CODA standards currently contain very few explicit mentions of issues related to overweight/obesity or diet/nutrition:
  * 2.8b Dental Hygiene education
  * 2.11, 2.20 Dental Therapy education
  * 4.13 Pediatric Dentistry advanced education

Discussion

* Interprofessional education (DiMaria-Ghalili et al., Am J Clin Nutr 2014)

* Guidelines for dental nutrition curriculum development were offered by the predecessor of ADEA, almost 30 years ago (J Dent Educ, 1989)

* Benefits of standardized curriculum seen by U.S. entry-level dental hygiene education program directors (Johnson et al., J Dent Educ 2016)
Discussion

* The importance of addressing childhood obesity and its nutritional correlates is universally recognized by all stakeholders

* Evidence of curricular content and efforts specific to the pediatric population is scant in dental/dental hygiene education

* The timing is good
  * Concerted efforts and IPE can help promote children’s health and wellness in an efficient manner, by addressing common nutritional risk factors
  * Dental and dental hygiene schools can leverage a wealth of existing resources and innovative, didactic and experiential approaches
  * Leverage and strengthen CODA standards
  * Collect new primary data on teaching and learning on this topic from dental and dental hygiene schools

Conclusions

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**IMPORTANCE OF ORAL HYGIENE DURING CHILDHOOD**

Harry B. Butler, D. D. S.,

Director of Dental Hygiene Unit No. 1, U. S. P. H. S.,

Washington, D. C.

Read before Session on Child Hygiene, American Public Health Association, at San Francisco, Calif.,
September 16, 1920.

Civilization is robbing the human race of its teeth and toothless man seems not far distant. The possibility of education to a coarser diet appears to be most remote, so the most hopeful coarse lies in prophylactic measures. The field is the child and the woman Dental Hygienist is the most promising missionary of preventive dentistry.
The importance of addressing childhood obesity and its nutritional correlates is universally recognized by all stakeholders.

Evidence of curricular content and efforts specific to the pediatric population is scant in dental/dental hygiene education.

The timing is good.

Leadership, champions, enthusiasm—be inspired by public health success stories.