

Qualitative Review of Dental-Nutrition Integration in Co-located ACEND-Accredited Nutrition Programs

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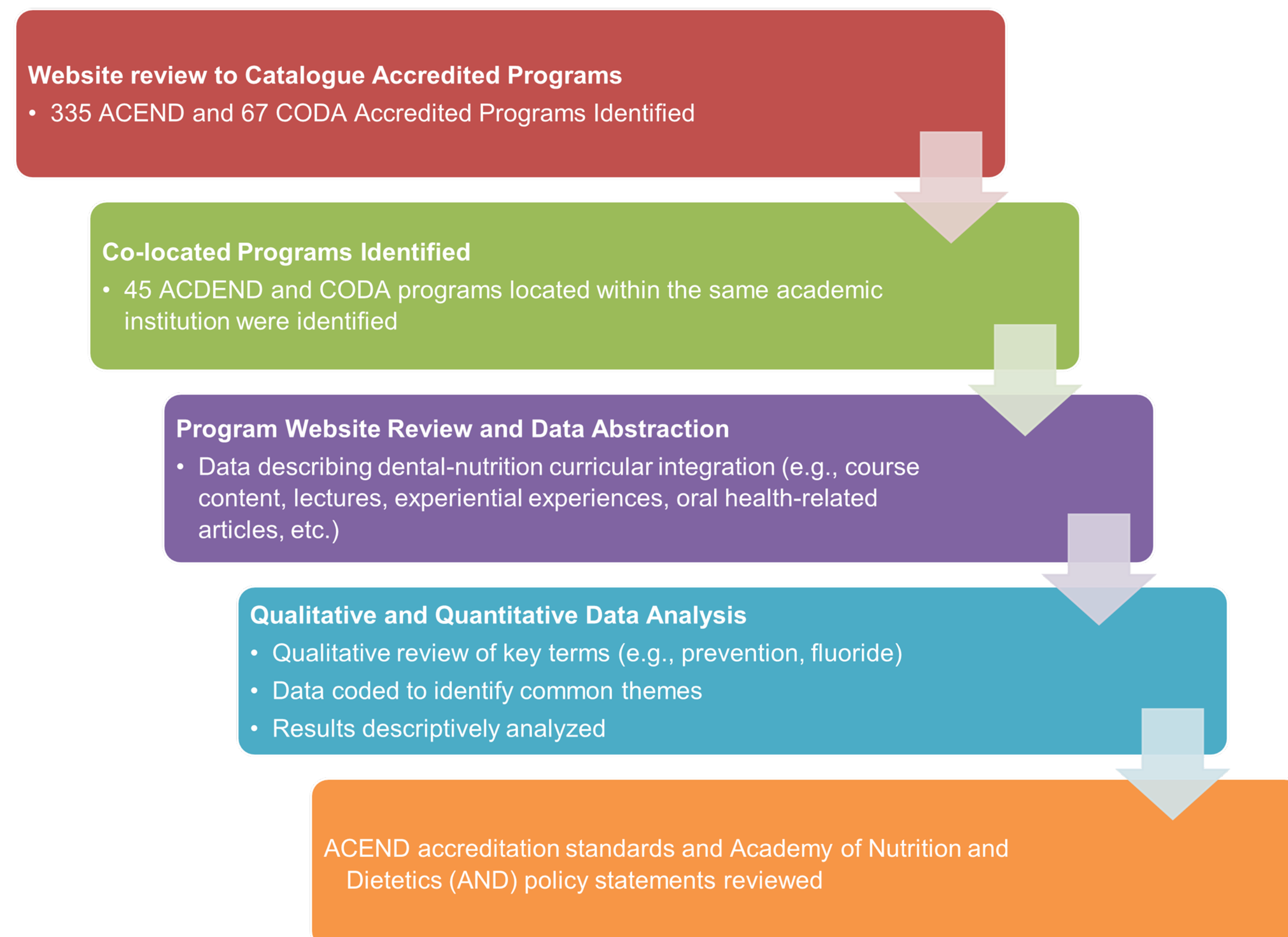
Background

- The role of diet and nutrition in oral health has been cited in professional dental literature for over a century, however, integration of these professions has been limited (Howe, 1921)
- The most prevalent and consequential oral conditions – caries and periodontitis – are largely preventable and significantly related to daily dietary behavior; yet:
 - caries accounts for 51 million lost school hours annually (Peterson-Sweeney, 2010)
 - periodontal disease, the most common cause of tooth loss, affects almost half of Americans over age 30 (Eke, 2015)
- Addressing behavioral and nutrition-related factors remain largely absent from current disease management strategies, contributing to unacceptably high prevalence and relapse rates
- Nutrition and Dental education literature emphasize dental-nutrition integration, however, graduates from both programs report a lack of education and training necessary to do so (Radler, 2005; Dominguez Castro, 2020; Stankorb, 2010)

Purpose

This scoping review of ACEND (Accreditation Council for Education in Nutrition and Dietetics)-accredited nutrition/dietetics programs co-located with CODA (Commission on Dental Accreditation)-accredited dental programs aims to describe dental-nutrition integration and evaluate related Academy of Nutrition and Dietetics (AND) recommendations.

Methods



Findings

- 45 co-located ACEND-accredited nutrition programs were identified. Most only offered a Masters degree (n = 23; 51.1%) followed by both a Bachelors and Masters degree (n = 17; 37.8%), no graduate degree (n = 3; 6.7%), Masters and Doctorate degrees (n = 1; 2.2%) and a combination of all three (n = 1; 2.2%). **(Figure 1)**

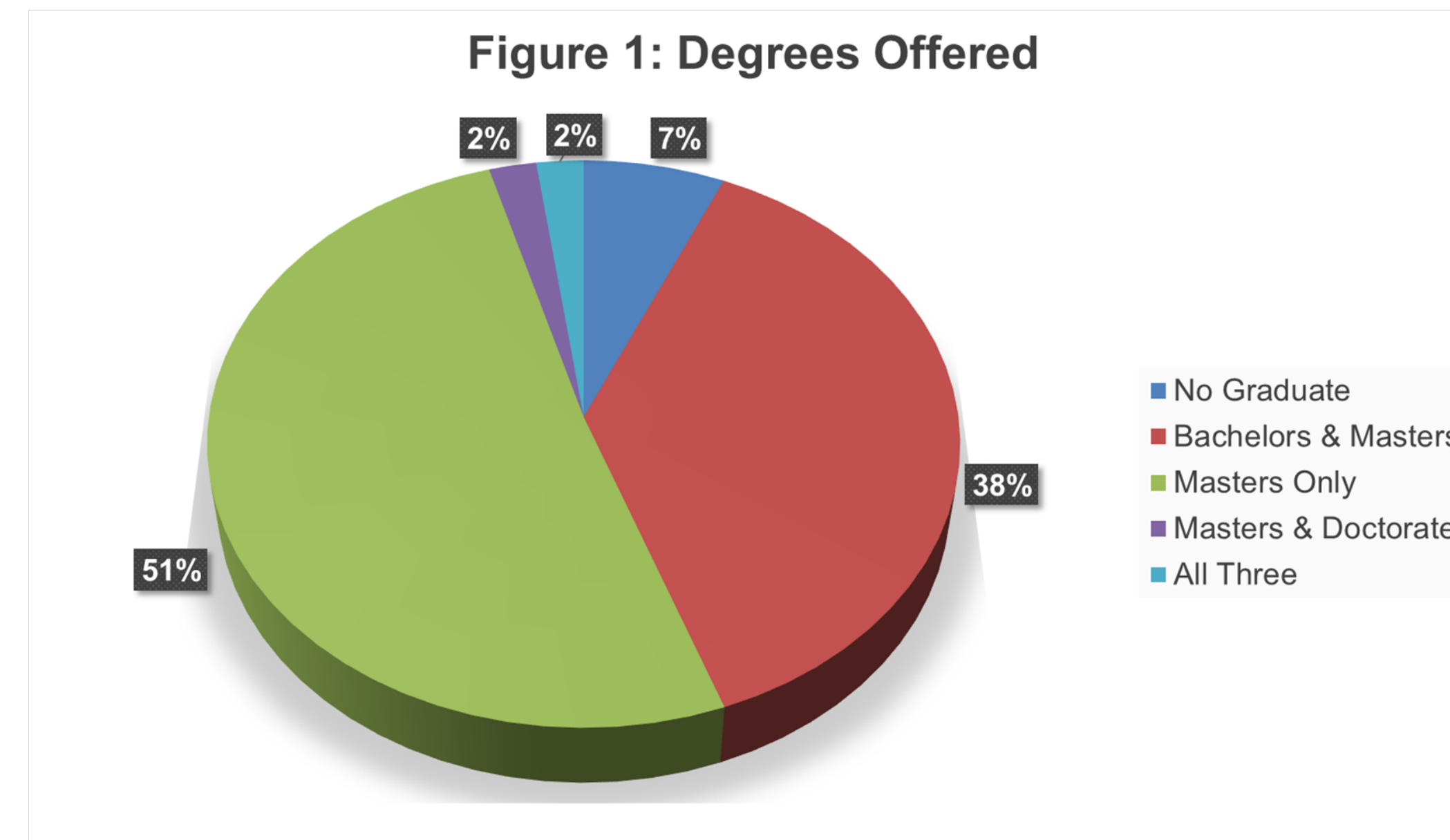
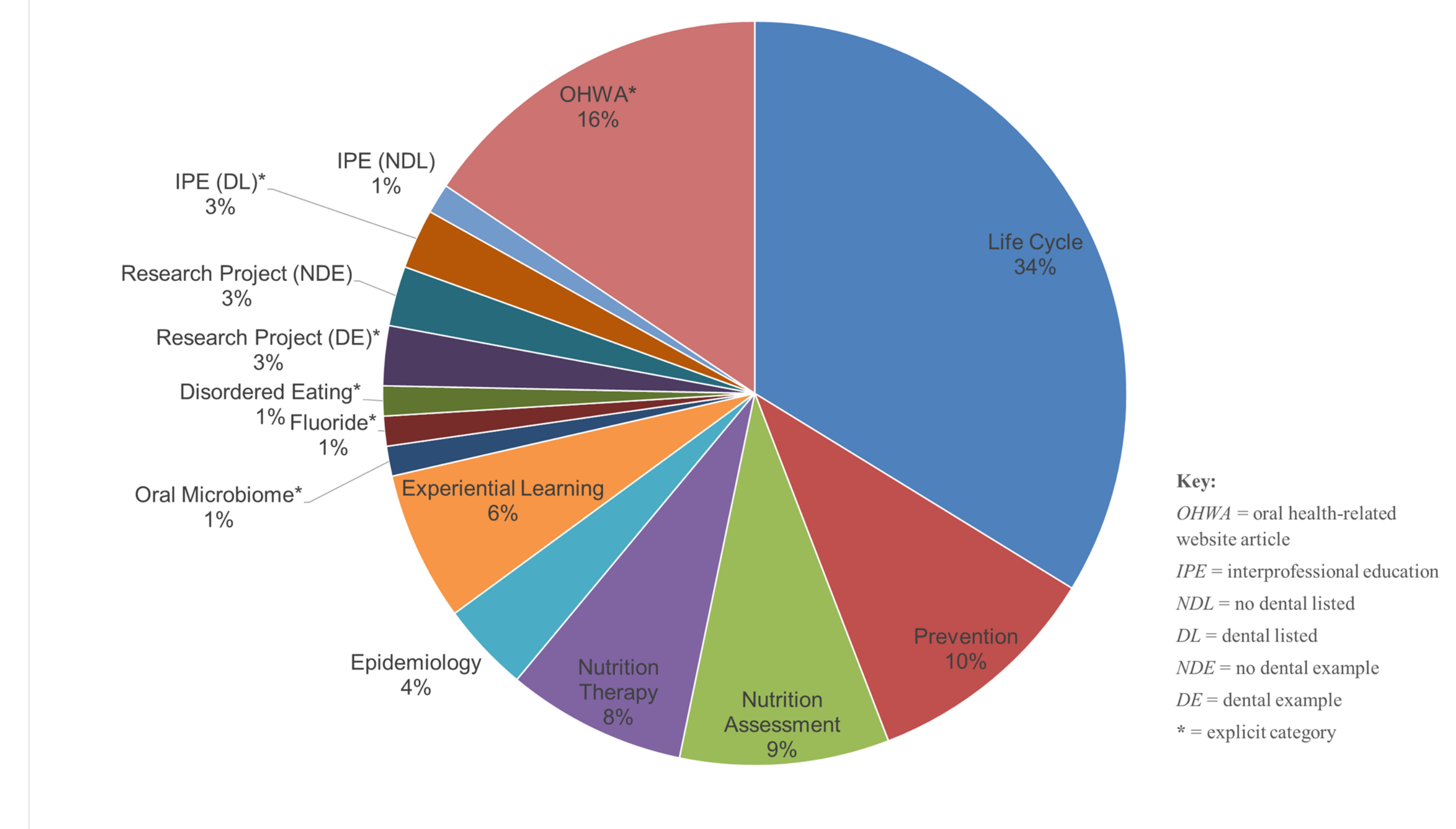


Figure 2: Total Frequency of Dental-Related Categories



- Curricular reviews identified 17 key terms that had an explicit (e.g. fluoride) or general (e.g. pediatric) relation to oral health
 - Similar terms were collapsed into 6 explicit and 8 general categories **(Figure 2)**
 - Key terms appeared 77 times
 - Most belonged to general categories (n = 58, 75% of terms) vs. explicit (n = 19; 24.7%)
 - Most explicit terms fell under “website article involving oral health” (n = 12), while “life cycle” (n = 26) had the highest number of appearances of all general categories

Findings (continued)

Category	n	% of programs
No Related Terms on Website	20	44.4%
Life Cycle	16	35.6%
Website Article Involving Oral Health	9	20.0%
Nutrition Assessment	7	15.6%
Prevention	6	13.3%
Nutrition Therapy	6	13.3%
Experiential Learning	5	11.1%
Epidemiology	3	6.7%
Research Project (dental topic featured as example)	2	4.4%
Research Project (no dental example)	2	4.4%
Interprofessional Education (dental listed)	2	4.4%
Oral Microbiome	1	2.2%
Fluoride	1	2.2%
Disordered Eating	1	2.2%
Interprofessional Education (dental not listed)	1	2.2%
Key:		
Explicit Category		General Category

- Review of ACEND accreditation standards identified no explicit statements or recommendations regarding; whereas AND details explicit didactic, research and clinical recommendations for nutrition/dietetics programs and dental programs.

Limitations

This study solely focused on co-located nutrition and dietetics programs; comparing dental-nutrition integration at stand-alone nutrition programs may provide greater insight into integration efforts. Results are limited by availability of publicly-accessible online data, which may not accurately reflect curricular content. A follow-on interview study with program faculty is underway to gather additional data.

Conclusions

Available data suggest ACEND-accredited programs lack dental-nutrition integration, despite AND recommendations; however, most have existing courses (e.g., Lifecycle Nutrition, Public Health Nutrition and Prevention, Epidemiology, Clinical Nutrition), which may be suitable for integration. Formalizing a dental-nutrition integration model and updating accreditation standards accordingly would foster interprofessional education and practice to address the largely preventable diet-related drivers of oral diseases, advancing a more cost-effective, collaborative, and comprehensive approach to both oral and systemic healthcare.