

Developing a Nutrition Education Program for Children and Adolescents with Eating Challenges Teaching Strategy

Overview of Teaching Strategy

As seen in both unfolding cases, [Mia](#) and [Thomas](#), nutrition affects overall health. Both children have disordered eating. Both children have disordered eating. Mia is underweight and snacks on sugary foods that cause her to have severe dental caries. Thomas, on the other hand, is an overeater who suffers from obesity and depression and is at high risk for diabetes. Although the children present opposite ends of the spectrum of “disordered eating,” both suffer from poor nutrition. We know that Mia’s nutrition has affected her oral health. We do not know the status of Thomas’ oral health at this time.

Childhood dental caries are among the most prevalent health problems facing American infants, children, and adolescents. Childhood overweight and obesity have reached epidemic proportions. In 2009–2012, nearly one in three youth ages 2 to 19 years were overweight or obese (2015–2020 Dietary Guidelines for Americans, p. 2).

There are many common risk factors for both obesity and oral health problems in childhood. By focusing on these common risk factors we can decrease both the rates of obesity and dental disease. Interprofessional collaboration between medical and dental health care teams is essential in addressing these two most prevalent diseases of childhood.

This teaching strategy focuses on developing competencies to educate parents and children on the importance of good nutrition in order to promote good oral health and prevent obesity.

Learning Objectives

Students will:

- Describe the importance of oral health in the child
- Describe the development of early childhood caries
- Demonstrate oral hygiene tips for child
- Describe the importance of fluoride for dental health
- Describe the role of the nurse when providing oral health care to children in the community

Learner Prework

Read

- Children Now and Oral Health Access Council. (2011). Oral health policy brief, childhood obesity & dental disease: Common causes, common solutions.
<https://files.eric.ed.gov/fulltext/ED539825.pdf>
- Identify the 5 DIETARY GUIDELINES FOR AMERICANS 2015–2020.
<https://health.gov/dietaryguidelines/2015/guidelines/executive-summary/>
- Dooley, D. Moultrie, N. M., Sites, E., & Crawford, P. B. (2017). Primary care interventions to reduce childhood obesity and sugar-sweetened beverage consumption: Food for thought for oral health professionals.
<https://onlinelibrary.wiley.com/doi/full/10.1111/jphd.12229>

Complete

- [Smiles for Life Course #2 – Child Oral Health](#).

Students should download the following for clinical use:

- Smiles for Life pocket card (SFL Child Oral Health Pocket Card)
- [Smiles for Life App for mobile device](#)

Suggested Learning Activities

1. Identify Risks for Obesity and Early Childhood Caries in Preschool Child

Working with a select group of children, students can participate in the following activities to determine children at high risk for nutritional disorders:

- Determine child's BMI using [CDC BMI calculator](#). Is this child overweight or obese? (the students will need access to the child's age, weight, and height, as well as DOB)
 - Show children pictures of foods to determine their knowledge of healthy eating practices. Children will choose which pictures of food are good and which are bad for their teeth
 - pictures of banana, strawberries, apple, carrots, spinach, milk
 - pictures of candy, soda, juice, sports drink
- Determine a child's risk of developing early childhood caries (ECC) by using a risk assessment tool:
 - Using the [AAP Oral Health Risk Assessment Tool](#), students will interview the caregiver of a preschool child to determine risk of the child developing caries

2. Identify Risks for Obesity and Oral Health Problems in an Adolescent in a school-based clinic

Working with a group of adolescents, students can determine risk for nutritional disorders and integrate healthy eating and oral health for adolescents. (Supplies: 3 snacks with labels, 5 beverages with labels: water, juice, soda, sports drink, milk)

- Determine if adolescent is overweight or obese using [CDC BMI calculator](#) (the students will need access to the adolescent’s age, weight, and height, as well as DOB)
- Teach adolescents to read food labels
<https://www.fda.gov/downloads/Food/FoodScienceResearch/ToolsMaterials/UCM586423.pdf>

Adolescents will compare 3 food labels from different snacks

Snack Name	CHIPS	CANDY	POPCORN
Serving Size			
Calories			
Fat			
Sodium			
Sugar			

- Teach adolescents about sugar in beverages
<https://www.fda.gov/downloads/Food/FoodScienceResearch/ToolsMaterials/UCM586423.pdf>

Adolescents will compare food labels from 5 beverages

Beverage	SODA	JUICE	SPORTS DRINK	VITAMIN WATER	MILK
Serving Size					
Calories					
Fat					
Sodium					
Sugar					

- Teach adolescents about eating healthy on the go (Supplies: 2 fast food menus)
<https://www.fda.gov/downloads/Food/FoodScienceResearch/ToolsMaterials/UCM586423.pdf>

Adolescents will compare 2 fast food menu items

Item		
Serving Size		
Calories		
Fat		
Sodium		
Sugar		
Cost		

- Develop a motivational interview (MI) texting program to encourage adolescent to make smart food choices to prevent obesity and oral health problems. Adolescents will partner with each other and send open-ended MI texts to each other every day for one week. Each text must have 3 exchanges.
 - Student #1 txt: “What did you do that was healthy this week and makes you proud?”
Student 2 answers and Student 1 responds...
 - Student #2 txt: “What did you eat when you and your friends went out on Saturday?”
Student 1 answers and Student 2 responds

Suggested Reading

- Read the following article which describes transitioning the traditional HEENT exam to the HEENOT exam to include the oral cavity: Haber, J., Hartnett, E., Allen, K., Hallas, D., Dorsen, C., Lange-Kessler, J., ... Wholihan, D. (2015). Putting the mouth back in the head: HEENT to HEENOT. *American Journal of Public Health, 105*(3), 437-441. Retrieved from <http://ajph.aphapublications.org/doi/full/10.2105/AJPH.2014.302495>
- Become familiar with [Smiles for Life](#), an Interprofessional Oral Health Curriculum consisting of eight 45-minute courses that contain the core components of oral health throughout the lifespan. The [Smiles for Life curriculum](#) format can be 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 module outlines. CE credit is available for each module upon completion. The faculty member should choose “Teach Curriculum” Course 2 – Child Oral Health. Each course has downloadable slides and speaker notes for class presentation. The slides can be arranged as you wish using the SFL slide sorter on the right side of the page.

- Become familiar with Cavity Free Kids, <http://cavityfreekids.org>, an oral health education program that contains many oral health and nutrition learning activities designed for use in the community for pregnant women and young children. Retrieved from www.smilesforlifeoralhealth.org
- Armstrong, S., Mendelsohn, A., Bennett, G., Taveras, E, Kimberg, A., & Kemper, A. (2018). Texting motivational interviewing: A randomized controlled trial of motivational interviewing text messages designed to augment childhood obesity treatment. *Child Obesity*, 14, 4-10. doi:10.1089/chi.2017.0089. Epub 2017 Oct 11
- Borrello M., Pietrabissa, G., Ceccarini, M., Manzoni, G. M., & Castelnuovo G. (2015). Motivational interviewing in childhood obesity treatment. *Frontiers in Psychology*. Retrieved from <https://www.frontiersin.org/articles/10.3389/fpsyg.2015.01732/full>
- Must, A., Phillips, S., Tybor, K., Lividini, K., & Hayes, C. (2012). The association between childhood obesity and tooth eruption. *Obesity*, 20(10), 2070-2074. doi:10.1038/oby.2012.23 Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3574556/pdf/nihms388333.pdf>
- Scharf, R., & Deboer, M., Sugar sweetened beverages and children’s health. *Annual Review of Public Health*, 37, 273-293. doi:10.1146/annurev-publhealth-032315-021528. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/26989829>
- US Food and Drug Administration. (2018). The Nutrition Label: Look for it and Use It. See <https://www.fda.gov/downloads/Food/LabelingNutrition/UCM410486.pdf>

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