



Pediatric Endocrinology Nursing Society Department

Promoting Food Literacy in Teens☆☆☆

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Introduction

“Food literacy is the ability of an individual to understand food in a way that they develop a positive relationship with it, including food skills and practices across the lifespan in order to navigate, engage, and participate within a complex food system. It is the ability to make decisions to support the achievement of personal health and a sustainable food system considering environmental, social, economic, cultural, and political components” (Cullen, Hatch, Martin, Higgins, & Sheppard, 2015, p. 143). High food literacy in adolescents has been associated with improved eating of a healthy diet, including more fruits and vegetables and less fast food (Vaitkeviciute, Ball, & Harris, 2015). Adolescents, however, generally have limited food literacy skills, lacking the ability to use food knowledge and skills to plan, manage, select, prepare and eat healthy foods (Wickham & Carbone, 2018). Instead, adolescents increasingly consume fast food meals and processed snacks away from home, contributing to the rising rates of obesity in adolescents in the United States (Larson, Miller, Watts, Story, & Neumark-Sztainer, 2016).

While the majority of adolescents were not familiar with the term, food literacy, stating it was “information about food” or a “specialized language of food,” they reported an interest in gaining competence in food literacy (Ronto, Ball, Pendergast, & Harris, 2016). Food literacy programs show promise in increasing competence and confidence in food knowledge and skills (Brooks, 2014). Pediatric nurses may partner with community leaders and members to create programs for adolescents to promote food literacy, empowering them to make healthier food choices and to improve lifelong health patterns (Amin et al., 2018).

Promoting food literacy knowledge

Food literacy knowledge are the facts and information about food and nutrition attained through life experience and education (Perry

et al., 2017). This includes a food and nutrition vocabulary, healthy vs. unhealthy foods, portion sizes, dietary guidelines, food safety, where food comes from, and animal welfare (Slater, Falkenberg, Rutherford, & Colatruglio, 2018).

Many adolescents reported not reading food labels because they did not know what to look for and also assumed that food labels were only important to those with special dietary needs. Adolescents acknowledged words they did not understand such as grams (Wickham & Carbone, 2018). They also had a negative reaction to food, based on ingredients on food labels that they believed would taste “nasty.” For example, adolescents rejected food products with brown rice syrup because it contained the words “brown rice” (Wickham & Carbone, 2018). Similarly, adolescents remained unsure how to apply dietary guidelines to their everyday food choices; female adolescents reported wanting to know more about portion sizes and dietary guidelines, while males did not see guidelines as relevant, preferring to eat until they felt full (Ronto et al., 2016). Adolescents consume a lot of fast foods and sweetened beverages which are calorie heavy and of poor nutritional quality (Hersch, Perdue, Ambroz, & Boucher, 2014).

Adolescents were worried about eating too much unhealthy food, seeing the need to regulate portion size with unhealthy foods more than with healthy foods (Ronto et al., 2016). Interestingly, adolescents knew little but wanted to know more about the macro and micro aspects of the food system e.g., animal welfare, farm to table ideas, and environmental sustainability.

Pediatric nurses may conduct education sessions that focus on how to read a nutrition label for key elements, helping adolescents identify the serving size, the numbers of servings per container, as well as foods high in fat, sugar, and salt to avoid and foods high in fiber to eat more. Adolescents would also benefit from sessions on healthy vs. unhealthy foods, food groups, and portion sizes based on MyPlate nutrition guidelines (<https://www.choosemyplate.gov/teens>). Adolescents may be surprised by a visual display of the sugar amounts for common drinks. Similarly, nurses can have teens pour a typical serving of cereal, chips, or other common snacks, comparing their poured amount to the recommended serving size.

Teens want to learn about the social, economic, environmental aspects of the food systems—how food is grown, processed, and how it gets to them, the consumer. There is growing concerns on how our food system affects animal welfare and environmental sustainability. To learn about food systems, pediatric nurses may direct teens to [Slow](#)

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Food USA®, 2019 a non-profit organization that is inspiring communities, including youth, to advocate for food that is good, clean, and fair for all <https://www.slowfoodusa.org/about-us>. Teens may join Slow Food USA® for free and become active in the many food-related initiatives; using the resources and support of the Slow Food USA network, teens may keep informed of and lobby for good, clean, and fair food policies, start a plant a seed campaign for their school garden, or become a meatless Monday ambassador.

Food skills

Food skills include the ability to plan for meals on a budget and to perform basic kitchen skills such as chopping, mixing, stirring, measuring ingredients, planning and preparing meals with recipes, using cooking equipment, and properly handling, preparing, and storing food (Perry et al., 2017). Young adults who enjoy cooking compared to those who do not were more likely to have participated in food preparation and cooking activities as adolescents, suggesting a sustained effect of cooking programs (Laska, Larson, Neumark-Sztainer, & Story, 2012). Pediatric nurses may lead food preparation and cooking programs that may positively influence adolescent food related preferences, attitudes, and behaviors (Vaitkeviciute et al., 2015).

Using resources and technology

Pediatric nurses will find a plethora of resources of already developed food literacy programs, detailing education sessions with objectives, lesson plans, teaching strategies, and needed supplies. The Supplemental Nutrition Assistance Program Education (SNAP-Ed) is a federally-funded program that provides resources supporting evidence-based nutrition education and obesity prevention interventions (USDA, 2018). Similarly, USDA Team Nutrition has developed many food literacy ideas ready for implementation. Pediatric nurses can go to <https://snaped.fns.usda.gov/> and <https://www.fns.usda.gov/tn/team-nutrition-recipes-and-cookbook-toolkit> to find recipes, cooking lessons, and guidelines on integrating cooking into community programs. Examples of food literacy programs found include: Eat Together, Eat Better promoting family meals of cooking together; Champions for Change promoting the consumption of fruit and vegetables; and Cooking Matters an educational program on shopping and eating healthier (USDA, 2018). Another helpful resource similar to SNAP-Ed is the Team Nutrition Popular Events Idea Booklet that has interactive programs promoting nutrition and physical activities <https://www.fns.usda.gov/team-nutrition-popular-events-idea-booklet> (USDA, 2017).

Adolescents, as natives of the digital world, may find support for healthy eating if they use technology to document their progress. Wickham and Carbone (2018) reported that adolescents reported positively on *FuelUp&Go!* a technology-driven program, using a fitness tracker, web-based health information, and text messaging. Adolescents may love Food Record, a food tracking app that uses photographs to analyze portion sizes, relaying nutrition information back to the phone (Boushey et al., 2015).

Implications

Pediatric endocrinology nurses typically provide care to adolescents with obesity and its related comorbidities. Yet, pediatric endocrinology nurses may better serve adolescents by expanding their practice to primary and secondary prevention of obesity with upstream health education to promote adolescents' food literacy. By partnering with

community groups in schools, churches, Boys and Girls clubs, and Scouts troops, pediatric endocrinology nurses may offer health education, building food literacy skills in whole communities with the ultimate goal of slowing the rise in obesity rates. Time may be well spent on these upstream interventions, teaching adolescents healthy habits that they may continue into adulthood (Hersch et al., 2014).

In a systematic review, Brooks (2014) identified recommendations for effective food literacy programs, including hands-on experiential learning of practical food knowledge and skills, classes held weekly, and providing adolescents with a certificate of successful completion of the program. Pediatric endocrinology nurses are in an ideal position to affect change with adolescents, but it requires creative programs that may use available resources. SNAP-Ed, along with the Team Nutrition booklet and Slow Food USA® are well developed programs with easy to use resources. Pediatric endocrine nurses can utilize pre-existing programs or create their own, working alongside community organizations to improve adolescents' food literacy that promote healthy eating habits and slow the rise in obesity rates.

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