



Dietary and Weight-Related Behaviors and Body Mass Index among Hispanic, Hmong, Somali, and White Adolescents

Chrisa Arcan, PhD, MHS, MBA, RD; Nicole Larson, PhD, MPH, RD; Kate Bauer, PhD, MS; Jerica Berge, PhD; Mary Story, PhD, RD; Dianne Neumark-Sztainer, PhD, MPH, RD

ARTICLE INFORMATION

Article history:

Accepted 15 November 2013
Available online 14 January 2014

Keywords:

Adolescents
Ethnic minorities
Dietary intake
Overweight and obesity
Weight-related concerns

Copyright © 2014 by the Academy of Nutrition and Dietetics.
2212-2672/\$36.00
<http://dx.doi.org/10.1016/j.jand.2013.11.019>

ABSTRACT

Background The population of the United States is becoming increasingly ethnically and racially diverse, much of it due to immigration patterns. However, little is known about dietary intake and weight-related concerns and behaviors of youth from some ethnic-minority groups, especially Hispanic, Hmong, and Somali adolescents.

Objective Our aim was to describe dietary intake and weight-related concerns and behaviors among Hispanic, Hmong, and Somali adolescents and compare them with white adolescents.

Design We performed a cross-sectional analysis of data from Eating and Activity in Teens 2010, a population-based study in the Minneapolis/St Paul metropolitan area.

Participants/setting Current analysis includes 1,672 adolescents (Hispanic: n=562 [33.6%]; Hmong: n=477 [28.5%]; Somali: n=113 [6.8%]; white: n=520 [31.1%]; mean age=15.0 years). Adolescents completed classroom surveys and had their height/weight measured during the 2009-2010 academic year.

Statistical analysis Multivariable regression models, adjusted for socioeconomic status, age, and school as a random effect were used to examine racial/ethnic differences for each outcome variable for boys and girls.

Results There were numerous differences in the behaviors of Hispanic, Hmong, and Somali adolescents as compared with whites. Hispanic and Somali youth consumed fruit and fast food more frequently. Hmong adolescents consumed sugar-sweetened beverages less frequently, and Somali boys consumed energy and sport drinks more frequently than whites. Compared with white boys, overweight/obesity was higher among Hispanic and Hmong. A higher percentage of Hmong and Somali adolescents engaged in unhealthy weight control behaviors. Body satisfaction was lower for all Hmong adolescents compared with whites.

Conclusions There were varying areas of concern in dietary intake, weight, and weight-related concerns and behaviors among adolescents in all ethnic groups. Future nutrition and physical activity interventions that include adolescents from these ethnic and cultural groups can benefit from, for example, modifying intervention strategies to the specific priority behaviors within the target population.

J Acad Nutr Diet. 2014;114:375-383.

THE POPULATION OF THE UNITED STATES IS becoming increasingly ethnically and racially diverse, much of it due to immigration patterns.¹ According to 2010 US Census data, in the last 10 years Hispanic and Asian populations experienced the fastest

growth, together representing about 21% of the total population.² In 2008, more than one in five US children had at least one foreign-born parent and 3.5% of children were foreign-born.³ It is projected that by 2030, the majority of US children will be of nonwhite racial background.⁴ Although Hispanic and Asian ethnic groups are the fastest growing, there have been large increases in populations from African nations. In the Midwest, the three fastest growing ethnic groups are Hispanic, Hmong, and Somali.⁵ More specifically, Minnesota is home to the second largest Hmong population and the largest Somali population in the nation, although Hispanics represent the largest non-white group.⁶

To take the Continuing Professional Education quiz for this article, log in to www.eatright.org, click the "myAcademy" link under your name at the top of the homepage, select "Journal Quiz" from the menu on your myAcademy page, click "Journal Article Quiz" on the next page, and then click the "Additional Journal CPE Articles" button to view a list of available quizzes, from which you may select the quiz for this article.

The majority of studies have shown that as the length of stay in the United States increases, the prevalence of obesity and other health outcomes of foreign-born ethnic minorities more closely resemble those of their native-born American counterparts.^{7,8} However, there is limited research on dietary behaviors, obesity prevalence, and weight-related behaviors of ethnic-minority youth, and the few studies conducted have found diet and weight disparities.⁹⁻¹⁴ Most studies have focused on Hispanic youth,^{9,11,15,16} with only a few on Hmong youth,^{14,17-19} and none on Somali youth. Studies have shown that Hispanic adolescents have high rates of overweight/obesity and have diets similar to whites, which are low in fruit, vegetables, and milk intake, and high in consumption of sugar-sweetened beverages (SSB).^{20,21} Previous findings indicate that Hmong adolescents have high intakes of unhealthy foods similar to whites and lower than recommended intakes of fruit, vegetables, and milk.^{14,19} It is important to note that the migratory experience to the United States has not been the same for each group. For example, the Hmong and Somalis arrived to the United States as refugees, having previously lived in refugee camps and/or war-torn areas. These experiences, which are likely qualitatively different than the Latino immigration experience, can influence their adjustment to the US food environment.^{22,23}

Weight-related concerns and behaviors are prevalent among adolescents and can have negative health effects, including excess weight gain over time.²⁴⁻²⁷ Ethnic/racial differences in weight-related concerns and behaviors have been observed in previous studies, with some studies showing that Hispanic and Asian-American boys and girls more frequently report engaging in these behaviors than white adolescents.^{11,28} In qualitative studies, Hmong adolescents report being dissatisfied with their bodies and embracing American body ideals, which are different from their traditional ones.¹⁷ Cultures that have experienced food scarcity and food insecurity often idealize a larger body size as a sign of wealth and food security. However, traditional ideals of body shape change as people migrate to Western regions that embrace thinner bodies for women and more muscular body shapes for men.^{29,30}

The purpose of this study is to examine dietary behaviors, weight status, body satisfaction, and unhealthy weight control behaviors among an urban community-based sample of Hispanic, Hmong, and Somali adolescent boys and girls, and compare them with white youth. This study seeks to address the knowledge gap in dietary intake and weight-related concerns and behaviors among specific ethnic minority groups of adolescents, and assess unique differences in these behaviors in order to guide health and nutrition interventions to meet the needs of these youth.

METHODS

Study Design and Population

Eating and Activity in Teens (EAT) 2010 is a population-based study designed to examine weight-related variables in adolescents. During the 2009-2010 academic year, surveys and anthropometric measures were completed by 2,793 adolescents from 20 public middle and high schools in metropolitan Minneapolis/St Paul, MN. Additional details about the design of the EAT 2010 study can be found elsewhere.^{31,32} For the current study, data from 1,672 adolescents (Hispanic 33.6%,

Hmong 28.5%, Somali 6.8%, and white 31.1%) were used. This sample was approximately equally distributed by sex (48% male) and had a mean age of 15.0 years (standard deviation=2.0 years); 45.4% were in middle school (6th to 8th grades) and 54.6% were in high school (9th to 12th grades). There were no appreciable differences between the current sample of adolescents and the entire sample with respect to sex, age, weight status, and socioeconomic status. Trained research staff administered surveys in school classrooms and measured adolescents' height and weight. All study procedures were approved by the University of Minnesota's Institutional Review Board Human Subjects Committee and by the research boards of the participating school districts. Adolescents were given the opportunity to assent only if their parent/guardian did not return a signed consent form indicating their refusal to have their child participate. Among adolescents who were at school on the days of survey administration, 96.3% had parental consent and chose to participate.

The EAT 2010 survey is a 235-item, self-report instrument assessing a range of factors of potential relevance to weight status and weight-related behaviors among adolescents. Survey development was initially guided by a review of previous Project EAT surveys^{11,33} to identify the most salient items and a theoretical framework, which integrates an ecological perspective with Social Cognitive Theory.^{34,35} The survey was initially pilot tested with 56 adolescents with diverse backgrounds for clarity, readability, and relevance of the survey items. After additional revisions, the survey was further pilot tested with a different sample of 129 middle school and high school students to examine the test-retest reliability of measures during a 1-week period. The psychometric properties of scales provided in the text here were assessed in the EAT 2010 population sample.

Measures

Dietary Intake and Meal Patterns. Past-year usual daily intakes of fruit (excluding juice), vegetables (excluding potatoes), milk, and SSB (eg, regular soda, punch, lemonade, Kool-Aid [Kraft Foods], or other noncarbonated fruit drinks) were assessed with the semi-quantitative Youth and Adolescent Questionnaire. Previous studies have examined and reported on the reliability and validity of intake estimates based on the Youth and Adolescent Questionnaire.^{36,37} A daily serving was defined as the equivalent of 1/2 cup for fruit and vegetables and 1 cup for milk. A serving of SSB was defined as the equivalent of one glass, bottle, or can. Responses to the Youth and Adolescent Questionnaire were excluded for 123 participants that reported a biologically implausible level of total energy intake (<400 kcal/day or >7,000 kcal/day).

Consumption of sport drinks, energy drinks, fast food, and breakfast were measured with questions on the accompanying EAT 2010 survey. Consumption of sport and energy drinks in the past year was assessed with the question: "In the past year, how many times did you usually drink . . . 1) an energy drink, 2) a sport drink." Popular brand name examples were given for both drinks (eg, Red Bull [Red Bull, GmbH], Full Throttle [The Coca-Cola Company], and Rockstar [Rockstar, Inc] for energy drinks, and Gatorade [PepsiCo] and Powerade [The Coca-Cola Company] for sport drinks).

Download English Version:

<https://daneshyari.com/en/article/5869549>

Download Persian Version:

<https://daneshyari.com/article/5869549>

[Daneshyari.com](https://daneshyari.com)