

Racial and Ethnic Disparities in Dietary Intake among California Children

Alma D. Guerrero, MD, MPH; Paul J. Chung, MD, MS



ARTICLE INFORMATION

Article history:

Submitted 7 January 2015
Accepted 19 August 2015
Available online 1 October 2015

Keywords:

Racial/ethnic disparities
Fast food
Sweets
Fruits
Vegetables

2212-2672/Copyright © 2016 by the Academy of
Nutrition and Dietetics.
<http://dx.doi.org/10.1016/j.jand.2015.08.019>

ABSTRACT

Background The prevalence of childhood obesity among racial and ethnic minority groups is high. Multiple factors affect the development of childhood obesity, including dietary practices.

Objective To examine the racial and ethnic differences in reported dietary practices among the largest minority groups of California children.

Methods Data from the 2007 and 2009 California Health Interview Survey were analyzed using multivariate regression with survey weights to examine how race, ethnicity, sociodemographic characteristics, and child factors were associated with specific dietary practices.

Results The sample included 15,902 children aged 2 to 11 years. In multivariate regressions, substantial differences in fruit juice, fruit, vegetable, sugar-sweetened beverages, sweets, and fast-food consumption were found among the major racial and ethnic groups of children. Asians regardless of interview language were more likely than whites to have low vegetable intake consumption (Asians English interview odds ratio [OR] 1.20, 95% CI 1.01 to 1.43; Asians non-English-interview OR 2.09, 95% CI 1.23 to 3.57) and low fruit consumption (Asians English interview OR 1.69, 95% CI 1.41 to 2.03; Asians non-English interview OR 3.04, 95% CI 2.00 to 4.6). Latinos regardless of interview language were also more likely than whites to have high fruit juice (Latinos English interview OR 1.54, 95% CI 1.28 to 1.84 and Latinos non-English interview OR 1.29, 95% CI 1.02 to 1.62) and fast-food consumption (Latinos English interview OR 1.74, 95% CI 1.46 to 2.08 and Latinos non-English interview OR 1.48, 95% CI 1.16 to 1.91); but Latinos were less likely than whites to consume sweets (Latinos English interview OR 0.81, 95% CI 0.66 to 0.99 and Latinos non-English interview OR 0.56, 95% CI 1.16 to 1.91).

Conclusions Significant racial and ethnic differences exist in the dietary practices of California children. Increased fruit and vegetable consumption appears to be associated with parent education but not income. Our findings suggest that anticipatory guidance and dietary counseling might benefit from tailoring to specific ethnic groups to potentially address disparities in overweight and obesity.

J Acad Nutr Diet. 2016;116:439-448.

THE PREVALENCE OF CHILDHOOD OBESITY AMONG racial and ethnic minority groups is high. Approximately 21% of Latino children and adolescents and 24% of African-American children and adolescents are obese compared with 14% of white children and adolescents.¹ Multiple factors contribute to the development of childhood obesity, including dietary behaviors.²⁻⁵ Health professional guidelines on the prevention and treatment of child overweight and obesity include specific dietary behaviors such as no consumption of sugar-sweetened beverages (SSBs), limiting fruit juice to 4 oz/day, limiting high-energy-density foods such as sweets, consuming ≥ 5 servings of fruits and vegetables (F/V) per day, and limiting the consumption of fast food or eating out (ie, food consumed away from home).⁶ African-American and Latino children compared with their white counterparts have been shown to have dietary practices that increase the risk of obesity such as higher intake of SSBs and fast food and lower intake of F/V.⁷⁻⁹ Few studies

have examined and compared dietary practices among minority and/or low-income pediatric populations as they pertain to the professionally recommended guidelines, and fewer have extended examination to the third major minority group in the United States—Asian populations.¹⁰

For health practitioners and registered dietitian nutritionists to support families in the prevention and treatment of childhood obesity, a general understanding of the dietary patterns of young children is necessary as is an understanding of the similarities and differences across races and ethnicities. Such information can help identify suboptimal dietary patterns that may contribute to disparities in childhood obesity. Challenges like language barriers and/or specific cultural health-seeking behaviors may prevent health care providers from effectively caring for children residing in diverse communities.^{11,12} Language barriers are important to consider because they can affect the quality of provider–patient communication and care. In addition, language

can be an indicator of acculturation, which providers may need to consider during dietary counseling because English-language proficiency negatively influences dietary practices among Latino immigrant populations.^{13,14} For these reasons, English-language proficiency is an important factor to consider in parent–provider interactions about a child’s nutrition and dietary practices but it can be overlooked due to the increasing pace and number of recommended topics to discuss during pediatric visits.¹⁵ Therefore, understanding the dietary patterns, similarities, and differences across racial, ethnic, and linguistic groups of children can help health practitioners and registered dietitian nutritionists efficiently target suboptimal dietary patterns for intervention.

The purpose of this study was to focus on minority children living in California and examine a set of well-described dietary practices known to contribute to unhealthy weight development, to explore the sociodemographic factors associated with these dietary practices, and ultimately provide a starting point for food and nutrition practitioners to tailor nutrition-related guidance for diverse populations.

METHODS

The data source for this study is the 2007 and 2009 California Health Interview Survey (CHIS). CHIS is the nation’s largest state health survey sponsored by a network of public agencies and private organizations. CHIS is a population-based telephone survey designed to estimate a variety of physical, emotional, and behavioral child and adult health and health care indicators and is representative of California’s diverse population. CHIS uses a landline and cellular telephone random-digit dial approach and an oversampling of specific populations to provide statewide population estimates. A total of 9,913 children aged 0 to 11 years in 2007 were sampled by the University of California Los Angeles Center for Health Policy Research (UCLA CHPR), and another 8,945 children in 2009. Verbal parental consent and adolescent agreement are obtained by UCLA CHPR before families participate in the CHIS survey. Interviews were conducted in five languages: English, Spanish, Chinese (Mandarin and Cantonese dialects), Vietnamese, and Korean, and the translation process involved several professional translators and multiple reviews and revisions of survey items until a consensus was achieved by both internal and external experts and translators. The translation was ultimately overseen and approved by the UCLA CHPR. Households were sampled from within 44 geographic sampling strata, each composed of either a single county or multiple counties. Sampling weights are calculated by UCLA CHPR to appropriately weight participants and includes a complex and iterative process that accounts for geographic strata and household-level data such as ethnicity, race, age, sex, household size, and education. Details about the 2007 and 2009 CHIS methodology are described elsewhere.^{16,17} The public use data files from CHIS 2007 and 2009 were merged and yielded a total of 18,858 completed interviews for children. Similar strategies of pooling data across survey years have been used to look at dietary behaviors and other health behaviors and outcomes.^{18,19}

The study sample included children aged 2 to 11 years. Given the relationship between weight and dietary practices, we intended to control for body mass index (BMI) in our

analyses. A total of 2,956 children younger than age 2 years were excluded because BMI norms are not established for children younger than age 2 years. To retain as many children in the analysis as possible and because BMI was not a primary outcome, we kept children in the sample who had missing weight or height data (using a “missing” indicator) but had complete data on all other outcome measures of interest in our a priori model. Children with missing height or weight were categorized into a “missing weight” category and included in all analyses of this study. This study was approved by the University of California, Los Angeles, Institutional Review Board.

Measures

The dependent variables of this study were the reported dietary practices of young children provided by the interviewed adult caregiver. The caregiver was the adult most knowledgeable about the child’s health and completed the interview. Caregivers were asked about the child’s F/V intake: “Yesterday, how many servings of fruit, such as an apple or banana, did (he/she) eat?” Servings were self-defined by caregivers and considered to be the children’s regular portion of this food. Caregivers were also asked about drinking patterns: “Yesterday how many glasses of or boxes of 100% fruit juice, such as orange or apple juice, did (he/she) drink?” and “Yesterday, how many glasses or cans of soda, such as Coke [Coca-Cola Company] or other sweetened drinks, such as fruit punch or sports drinks did (he/she) drink?” Caregivers were also asked to estimate children’s consumption of sweets: “Yesterday, how many servings of sweets such as cookies, candy, doughnuts, pastries, cake or popsicles did (he/she) have?” Responses for these items included the number of servings, glasses, boxes, or cans reported by the caregiver. The servings, glasses, boxes, or cans were defined by each caregiver and servings for children were not specified by the interviewer. Lastly, caregivers were asked about each child’s fast-food consumption: “Now think about the past week. In the past 7 days, how many times did (he/she) eat fast food? Include fast food meals eaten at school or at home, or at fast-food restaurants, carryout, or drive-thru.” If needed, interviewers would also add “such as food you get at [specific fast-food chain restaurants].” Responses for this item included the number of times parents reported eating out or fast food. The items of the CHIS Diet Screener have undergone validation research and are useful for estimating mean intakes, to discriminate among individuals or populations with regard to higher vs lower intakes, to track dietary changes in individuals or populations over time, and to allow examination of interrelationships between diet and other variables.^{20,21} Categories for all outcomes were collapsed to approximate the dietary practices recommended by the 2007 Expert Committee Recommendations regarding childhood prevention of overweight and obesity, ease of interpretation, and the literature on fast-food intake.^{6,22,23}

The independent variables for this study include sociodemographic characteristics related to dietary practices that have been well described in the literature.^{5,24–35} They include child’s race/ethnicity, sex, BMI, and age; the caregiver’s level of educational attainment, age, and sex; household configuration, size, and income; geographic region of residence; language of survey interview; and assessment of a child’s

Download English Version:

<https://daneshyari.com/en/article/2656692>

Download Persian Version:

<https://daneshyari.com/article/2656692>

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