Introduction

Objective

To examine dietary behaviors, diet quality, and childhood obesity by caregiver and child gender.

Background

Comparisons of children’s feeding practices by comparing mothers versus fathers have found mixed results. Few studies have examined between-family dietary behaviors by the gender of both caregivers and children. We examined children’s dietary behaviors, diet quality, levels of physical activity, and obesity status by caregiver and child gender in low-income California households participating in the 2018 California Family Health Study.

Methods

Participants and Procedure

Households from all 50 California counties were randomly selected from the California Department of Health Care Services Medi-Cal Eligibility Data System database. Participants were 2,245 children (50.5% male, 49.5% female) and 1,863 female caregivers who provided valid dietary data in the 2018 administration of the California Family Health Study. Children’s race/ethnicity was 68.3% Latino, 14.8% White, 12.4% African American, and 3.7% other races/ethnicities.

Households were mailed an introductory letter, followed by a recruitment call. Households that agreed to participate received a packet including measuring cups and spoons and a pictorial portion guide to aid in communicating about portion size, along with a tape measure for measuring height.

Trained interviewers administered the ASA24 interview, then the supplemental interview to adults and children. Informed consent was verbally obtained from adults for all interviews and asset was obtained from children for their interviews. Dietary variables were computed from the ASA24 data. Supplemental interview data yielded physical activity levels and height and weight, used to compute BMI (using CDC cutoffs for adults and growth charts for children’s BMI; CDC, 2019).

Analyses

Outcomes were compared across four caregiver by child gender dyads: daughters of male caregivers, sons of male caregivers, daughters of female caregivers, and sons of male caregivers. Linear and logistic regression models controlled for children’s race/ethnicity and age.

Results

Added Sugars

Female caregivers’ sons consumed more teaspoons of added sugars (M = 12.08) than did female caregivers’ daughters (M = 11.38; p < .001) or male caregivers’ sons (M = 11.05; p < .018). Female caregivers’ daughters did not differ from male caregivers’ daughters (M = 11.02) in their added-sugars consumption, nor did male caregivers’ sons differ from their daughters.

Kilocalories

Female caregivers’ sons consumed more kilocalories than did female caregivers’ daughters (M = 12,022; p < .001) or male caregivers’ sons (M = 11,722; p < .018). Female caregivers’ daughters did not differ from male caregivers’ daughters (M = 11,722) in their added-sugars consumption, nor did male caregivers’ sons differ from their daughters.

Food-only Energy Density

Female caregivers’ sons (M = 1.68) had more energy-dense food intake than did their daughters (M = 1.60; p < .001).

Weight Status

Finally, female caregivers’ sons were more likely to be obese (28.6%) than were their daughters (23.7%; p < .04). Among male caregivers’ children, 23.0% of sons and 26.1% of daughters were obese.

Discussion

Female caregivers’ sons consumed more added sugars and kilocalories that did their daughters. They also had more energy dense food intake. Higher food-only energy density indicates a lower quality diet. Food-only, as opposed to overall, energy density has been considered a preferred indicator of diet quality because it is not overly influenced by the weight of water in calories and non-caloric beverages (Benaventi et al., 2015). Among children of female caregivers, a greater proportion of sons than daughters were obese. No such differences were observed between sons and daughters of male caregivers.

Unique to the existing literature is our between-family comparisons of children’s dietary behaviors by caregiver gender and our findings regarding female caregivers’ sons. These findings suggest that the focus on female caregivers for nutrition and obesity prevention public health programs such as SNAP-Ed is warranted. Findings also highlight the need to consider the gender of caregivers’ children when designing and implementing interventions and services aimed at low-income families.

References