

EFFECTS OF HIGH ENERGY DENSITY FOOD CONSUMPTION AT 2 YEARS OF AGE ON DIETARY QUALITY AT 4 YEARS OF AGE

Vilela S^I, Oliveira A^{II}, Ramos E^{III}, Lopes C^{III}

OBJECTIVE

To evaluate the association between the consumption of high energy-dense foods at 2 years of age with diet at 4 years of age.

^I Institute of Public Health University of Porto.

^{II} Department of Clinical Epidemiology, Predictive Medicine and Public Health of University of Porto Medical School.

METHODS

As part of the population-based birth cohort Generation XXI a sample of 705 children was reevaluated at 2 and 4 years of age. Based on food frequency questionnaires 4 food groups were defined: soft drinks, salty snacks (crisps, pizza and burger), cakes and sweets (chocolate and candies). Food items were categorized considering a median consumption at both ages. A healthy eating index was constructed to evaluate the adherence to the World Health Organization dietary recommendations for children (2006) at 4 years of age. Quartiles of consumption were obtained from food groups of interest, scoring from 1 to 4 (4 was assigned to the upper or lower quartile of healthy or unhealthy food consumption, respectively). The associations were evaluated through Poisson regression models [incidence ratio rate (IRR) and 95% confidence intervals (95%CI)], adjusted for maternal age and education, caregiver, siblings, and child's BMI.

RESULTS

In multivariate analysis, a higher consumption of high energy density foods at 2 years of age was associated with a higher consumption of the same foods 2 years later. An inverse association was found between the intake, at 2 years of age, of soft drinks (IRR=0.74, 95%CI:0.58-0.95), salty snacks (IRR=0.80, 95%CI:0.65-1.00) and sweets (IRR=0.73, 95%CI:0.58-0.91) and fruit and vegetables intake at 4 years of age. No statistically significant association was found between high energy-dense food consumption at 2 years of age and consumption of the remaining food groups at 4 years of age (dairies, red meat & meat products and white meat & fish). A higher consumption of high energy density food at 2 years of age was associated with a lower score in the healthy eating index at 4 years of age.

CONCLUSION

Consumption of unhealthy foods in early ages seems to affect negatively children's diet quality a few years later.