The Mediterranean Diet and ADHD in Children and Adolescents

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Abstract

OBJECTIVES:
Although attention-deficit/hyperactivity disorder (ADHD) has been related to nutrient deficiencies and “unhealthy” diets, to date there are no studies that examined the relationship between the Mediterranean diet and ADHD. We hypothesised that a low adherence to a Mediterranean diet would be positively associated with an increase in ADHD diagnosis.

METHODS:
A total of 120 children and adolescents (60 with newly diagnosed ADHD and 60 controls) were studied in a sex- and age-matched case-control study. ADHD diagnosis was made according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision. Energy, dietary intake, adherence to a Mediterranean diet, and familial background were measured. Logistic regression was used to determine associations between the adherence to a Mediterranean diet and ADHD.

RESULTS:
Lower adherence to a Mediterranean diet was associated with ADHD diagnosis (odds ratio: 7.07; 95% confidence interval: 2.65–18.84; relative risk: 2.80; 95% confidence interval: 1.54–5.25). Both remained significant after adjusting for potential confounders. The lower frequency of consuming fruit, vegetables, pasta, and rice and higher frequency of skipping breakfast and eating at fast-food restaurants were associated with ADHD diagnosis (P < .05). High consumption of sugar, candy, cola beverages, and noncola soft drinks (P < .01) and low consumption of fatty fish (P < .05) were also associated with a higher prevalence of ADHD diagnosis.

CONCLUSIONS:
Although these cross-sectional associations do not establish causality, they raise the question of whether low adherence to a Mediterranean diet might play a role in ADHD development. Our data support the notion that not only “specific nutrients” but also the “whole diet” should be considered in ADHD.