FRUIT AND VEGETABLE CONSUMPTION: EFFECTS OF A SCHOOL-BASED INTERVENTION IN PORTUGUESE CHILDREN

Pereira B[1], Poínhos R[1], Franchini B[1], de Almeida MDV[1]

The objective of the present study was to evaluate the effects of the Pro Greens intervention on schoolchildren's fruit and vegetable frequency of intake. The intervention combined a fruit and vegetable curriculum with efforts to improve availability at schools and at home.

Participant schools were randomly assigned to intervention or control groups. Fruit and vegetable intake was assessed by a validated self-administered food frequency questionnaire with questions on usual fruit and vegetable intake completed before the intervention (May 2009) and immediately after the intervention (May 2010). A total sample of 690 sixth graders (control = 380; intervention = 310), aged 10-13 years from five Portuguese schools was analyzed.

Data analysis was conducted using SPSS® version 20.0. Independent samples T tests were performed; statistical significance was established at $p<0.05$.

No significant differences in the mean frequency of consumption of fruit and vegetables were found between the control and intervention groups at the baseline level (Fruit: 0.92 vs. 1.04 times per day, $p = 0.073$; Vegetables: 1.48 vs. 1.67 times per day, $p = 0.111$). Significant differences in the mean frequency of consumption of fruit and vegetables were found between the control and intervention groups at the follow-up (Fruit: 0.93 vs. 1.11 times per day, $p = 0.006$; Vegetables: 1.46 vs. 1.67 times per day, $p = 0.038$).

Although significant, the differences between groups are low in magnitude. The high variability of results make the analysis of characteristics and factors associated with the success of the intervention of major importance. These must be considered to ensure optimization in the results of such interventions.

[1] Faculty of Nutrition and Food Sciences, University of Porto, Portugal.