Food consumption patterns and weight gain among Brazilian adults

Introduction: Considering changes in eating habits and rising levels of obesity in Brazil, this study aimed to identify dietary patterns and their association with weight gain in Brazilian adults.

Methods: Cross-sectional study that analyzed 30,522 adults from Brazilian Surveillance System of Risk and Protective Factors for Chronic Non-Communicable Diseases through Telephone Interviews (VIGITEL) 2012. The weight gain was calculated as the difference between the current weight and the weight at 20 years old, both self-reported. Exploratory factor analysis was carried out in order to identify food consumption patterns using questions about weekly frequency of consumption of six food groups (vegetables, fruits, milk, meat, sweets, soft drinks) and the habit of replacing meals by snacks (possible answers: never / hardly ever; 1-2 days; 3-4 days: 5-6 days; and 7 days). Multiple linear regression models were used to explore the association between the food patterns and weight gain.

Results: Two dietary patterns were identified. The first, named healthy pattern, was positive for vegetables, fruit and milk, and negative for soft drinks. The second, named unhealthy pattern, was positive for soft drinks, sweets, meats and the replacement of meals by snacks. Weight gain was inversely associated with the healthy pattern (β: -0.52, 95% CI -0.85, -0.19) and directly associated with the unhealthy pattern (β: 0.48, 95% CI 0.15 ; 0.81).

Conclusion: The results indicated two opposite food patterns among Brazilian adults, and that weight gain was directed associated with the unhealthy one.