Topic Area: Dietary Assessment

Abstract Title
Breakfast quality and its association with cardiometabolic risk factors: a population-based study

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Abstract

Introduction: Breakfast consumption contributes to healthier diets and control of non-communicable diseases risk factors. Its structure can vary with different foods, and consequently, different nutritional qualities. In this context, breakfast quality indexes come as quantitative tools to evaluate breakfast nutritional quality. However, few studies have been conducted to evaluate their associations with health outcomes.

Objective: To evaluate the breakfast nutritional quality using the Brazilian Breakfast Quality Index (B-BQI) and its association with cardiometabolic risk factors in residents of São Paulo city, Brazil.

Methods: Data came from the 2015 São Paulo Health Survey, a cross-sectional population-based study whom evaluated a multiethnic sample of 606 adults and 537 older adults living in São Paulo city. The breakfast quality was evaluated considering 24-h recalls and were classified in scores ranging from 0 to 10 according to B-BQI. B-BQI associations with cardiometabolic risk, demographic, socioeconomic and lifestyle variables were determined using multiple logistic regression models adjusted for the complex sampling design.

Results: Individuals in higher categories of household income, educational level, age, with racial self-identification as white, who never smoke, and meet the recommendation of leisure-time physical activity had higher breakfast quality. Higher scores of B-BQI was negatively associated with 6 of the 9 cardiometabolic risks factors investigated (elevated blood pressure, total cholesterol, LDL-c, fasting glucose, excess body weight, and metabolic syndrome), with odds ratios ranging from 0.78-0.87 (p-value<0.05). Results remained significant after adjustments for Brazilian Healthy Eating Index (B-HEI).

Conclusion: Breakfast quality was associated with lower odds of cardiometabolic risk factors, suggesting a beneficial effect in this population.

Significance to the Field of Dietetics: To our knowledge, this was the first study to identify the cardiometabolic protective effects of a quality breakfast among a multiethnic sample of Brazilian adults. These findings could support future interventions and policies for optimal meals consumption in Brazil.