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NUTRITIONAL INTAKE AND TOTAL ENERGY EXPENDITURE: A COMPARATIVE ASSESSMENT OF SRILANKAN AND BELARUSSIAN UNIVERSITY STUDENTS

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Relevance. University students represent a nutritionally vulnerable population due to a combination of factors including irregular eating habits, high academic stress, limited financial resources, restricted access to balanced meals, and often poor nutritional awareness. The transitional period of university life frequently coincides with the adoption of unhealthy dietary patterns that can have long-term implications for health and well-being. Understanding cross-cultural differences in nutritional intake, energy balance, and nutrition-related health outcomes is essential for developing culturally appropriate and targeted health interventions for student populations across different geographic, economic, and cultural contexts. This study addresses a critical gap in the literature by directly comparing the nutritional profiles of students from two distinct cultural backgrounds: Sri Lanka, a South Asian nation with a predominantly plant-based dietary tradition, and Belarus, an Eastern European country with a diet characterized by higher animal product and carbohydrate consumption.

Aim: this study aimed to compare the nutritional intake (proteins, carbohydrates, fats), total energy expenditure, and self-reported nutrition-related symptoms between Sri Lankan and Belarusian university students.

Materials and methods. A cross-sectional survey was conducted using a structured Google Form questionnaire distributed to university students in Sri Lanka and Belarus. The questionnaire assessed demographics, lifestyle patterns, macronutrient intake (proteins, carbohydrates, fats in grams), vegetable and fruit consumption, total energy expenditure based on activity levels, and self-reported nutrition-related symptoms. A total of 106 students participated, comprising 63 Sri Lankan and 43 Belarusian respondents. Nutrient estimates were calculated using midpoint values from categorical response ranges. Statistical analysis included two-sample Welch t-tests for continuous variables and chi-square tests for categorical variables.

Results and their discussion. Belarusian students reported significantly higher protein intake (mean 85.8 g/day) compared to Sri Lankan students (mean 46.8 g/day). Carbohydrate intake was also substantially higher among Belarusian students (mean 305.8 g/day) than Sri Lankan students (mean 232.5 g/day). Total energy expenditure was greater in Belarusian students (mean 1639 kcal/day) compared to their Sri Lankan counterparts (mean 1370 kcal/day). Fat intake did not differ significantly between the two groups. Notably, nutrition-related symptoms in the past three months were reported by 93.7% of Sri Lankan respondents compared to only 37.2% of Belarusian respondents, revealing a strong association between country and symptom reporting. These findings suggest that Belarusian students in this sample demonstrate higher macronutrient consumption and energy expenditure, while Sri Lankan students report a substantially higher burden of nutrition-related symptoms despite lower reported intakes. The disparity may reflect differences in dietary patterns, food availability, supplement use, or underlying nutritional deficiencies that warrant further investigation.

Conclusions. This study reveals significant cross-cultural differences in nutritional intake and energy expenditure between Sri Lankan and Belarusian university students. Belarusian students consume higher protein and carbohydrates with greater energy expenditure, while Sri Lankan students report markedly more nutrition-related symptoms. These findings highlight the need for culturally tailored nutritional interventions, particularly addressing the high symptom burden observed among Sri Lankan students.