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of insect ingestion with a reduction in plasma TNF- α levels and an increase in *Bifidobacterium animalis* in feces. It is important to note that one of the main problems in the consumption of insects is their allergenicity, studies of enzyme hydrolysates are allowing us to find possible alternatives to reduce this problem.

Conclusions: Edible insects represent an interesting source of bioactive compounds, with beneficial effects on the immune system, but require further research with diverse species and different nutritional profiles.

Conflict of Interest: none

Keywords: edible insects; bioactive compounds; sustainable protein; immunonutrition

S27: Social Innovation Challenge to Improve Adolescent Women's Nutrition

S27.1

Food Consumption in Adolescent Girls: How Far are We from Recommendations?

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Introduction: Adequate energy and nutrient intake in adolescent girls are crucial for their health and that of their offspring. However, few studies evaluate food intake in this group.

Objective: To assess the consumption pattern and prevalence of risk of deficiency in the usual intake of energy and nutrients in a group of adolescent girls from Medellín.

Methods: This is a descriptive, cross-sectional study involving 1010 adolescents aged 14 to 20 years from the Popular, Manrique, and Villa Hermosa neighborhoods of Medellín. Food consumption was evaluated using a 24-hour recall (24HR), applied to all participants. A second 24HR was conducted on a random subsample (21%) to adjust for inter and intra-individual variability. Usual intake was estimated using EVINDI and PC-SIDE software and compared with the Estimated Average Requirement (EAR). To analyze consumption patterns, foods from the first recall were classified into six groups according to the Colombian Food-Based Dietary Guidelines (known in Spanish as GABA), and the Consumption Ratio Index, which is the ratio between consumed and recommended calories, was calculated. Descriptive statistics were used, and the prevalence of risk of deficiency in usual energy and nutrient intake was established using the Wilcoxon signed-rank test and the effect size with the Biserial correlation coefficient, using Stata 16 and Jasp 0.14.1.0.

Results: Most adolescents had a consumption of fruits, vegetables, dairy products, and proteins below the GABA recommendations, while intake of starches, fats, and sugars was equal to or above. There was evidence of an energy deficit and excessive intake of saturated fats and simple carbohydrates. Nearly all adolescents

were at risk of deficiency in usual calcium and fiber intake; more than half in folate and iron, and one-third in proteins, thiamine, vitamin C, and zinc.

Conclusions: The food consumption pattern of adolescent girls in Medellín is inadequate and poses risks of significant nutritional deficiencies that can have deleterious short- and long-term effects.

Conflicts of Interest: none

Keywords: adolescent; women; eating; nutrients

S27.2

A Challenge of Nutritional Education and Social Innovation to Improve Adolescent Girls' Eating Habits

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Introduction: Nutritional education that promotes empowerment in food choices contributes to improving food consumption and dietary practices among adolescent girls.

Objective: To develop a nutritional education and social innovation challenge to promote healthy and conscious eating habits among adolescent girls in Medellín.

Methods: We designed an educational intervention based on a flexible learning pedagogical model developed by the International Center for Education and Human Development Foundation (known in Spanish as CINDE). This model has three levels of training (theoretical, practical, and communication). Educational sessions were tailored to the nutritional needs and risks previously identified among adolescent participants and encouraged their empowerment in making dietary and nutritional decisions. Each session included five stages: memory, game, reflection, practice, and challenge. Educational materials were created with adolescent participation. Training in innovation and entrepreneurship was provided to develop productive projects addressing the identified issues; the three best projects received funding and promotion in local markets.

Results: The nutritional education program, named CERES School, included six educational sessions on the following themes: Presentation of the characteristics of adolescents' food consumption; the body as a territory and healthy habits; key aspects of healthy eating; fruits and vegetables vs. ultra-processed foods; legumes and vegetable blends; dairy products and derivatives. The adolescents developed the following productive projects: healthy beverages, healthy breakfasts with available foods, consumption of local fruits and vegetables, recipes with vegetable protein, creation of healthy sauces and dressings, strategies to improve body perception, social media for disseminating nutrition content, physical activity for health. Educational materials