

Promoting Conscious Eating and Sustainability through Culinary Nutrition Education in High School Students.

An Educational Intervention Study on Nutrition Awareness and Sustainable Food Practices

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Background and Objectives:

This project represents an educational innovation that uses the kitchen as a dynamic learning laboratory, enabling students to acquire knowledge through an active, hands-on, and experiential approach. High school students from Tec de Monterrey can enroll in an elective subject called “Culinary Nutrition” during either their fifth or sixth semester. The main objective of this study was to evaluate the influence of the course on students’ knowledge, healthy habits, and sustainable practices related to nutrition and gastronomy.

Methods:

The course consisted of 12 theoretical and 14 practical sessions. Two initial questionnaires were applied: a 24-hour dietary recall, which allowed a quantitative evaluation of dietary intake, and a food frequency questionnaire, which provided a qualitative assessment of eating habits. Additionally, a nutrition and gastronomy knowledge questionnaire was applied to assess baseline understanding.

At the end, the same instruments were reapplied, along with a questionnaire to assess perceived benefits and the impact of the subject on their eating behaviors and sustainability awareness.

Results:

Among the 80 students evaluated, **95%** showed an increase in fruit and vegetable consumption, and **80%** improved their knowledge and cooking skills related to legumes resulting in higher intake, especially among female participants. All students reported being more careful about food waste and adopting more responsible consumption practices. **82%** replicated recipes at home, **73%** created their own sprouts and/or home gardens, and **100%** demonstrated improved understanding of nutrition and planetary health concepts.

Conclusions:

The Culinary Nutrition subject proved to be an effective and innovative strategy to promote healthier and more sustainable food habits among adolescents. Students not only improved their dietary quality but also became more proactive in producing and preparing their own food, strengthening their sense of environmental responsibility. This experience underscores the transformative potential of integrating nutrition, gastronomy, and sustainability within school curricula to foster both personal and planetary well-being.