

Does Knowledge of Carotenoids Influence Fruit and Vegetable Intake in College Students?

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OBJECTIVES

This study investigates the knowledge of college-aged students regarding the medicinal potential of food, with a focus on carotenoids (natural pigments found primarily in fruits and vegetables and that must be acquired from the diet), and the impact on healthy food habits, especially fruit and vegetable intake.

DESIGN

Carotenoid knowledge and fruit and vegetable intake data of 50 freshman and sophomore Clemson University students, ages 17-20 yrs. who are or are-not enrolled in university meal plans are evaluated. Students participating in a university meal plan have ready access to fruits and vegetables while students without a meal plan must budget for these purchases. Carotenoid levels in participants are evaluated,

METHODS AND INSTRUMENTS

Questionnaires surveying fruit and vegetable intake habits and carotenoid knowledge are delivered and data collected via Qualtrics from participants. Carotenoid levels of subjects are determined using The Veggie Meter®.

RESULTS

Preliminary data (unpublished) results show significant variability in carotenoid levels in elementary school-aged children. Less variability is anticipated in college-aged students based on education level and nutrition knowledge. University meal plan participants are hypothesized to consume more fruits and vegetables and have higher carotenoid levels. T-test with p-value of <0.05 denotes significant differences between meal plan and without meal plan subjects, and in carotenoid levels.

CONCLUSIONS

Carotenoids are important components of a healthy diet. Knowledge of carotenoids and individual's levels may signify fruit and vegetable intake. Findings presented will offer valuable insights into whether higher carotenoid levels mimic consumption contributing to 'food as medicine' data.

CONFLICT OF INTEREST AND FUNDING DISCLOSURE STATEMENT

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