

## Dietary Intakes and Associated Demographic, Behavioural and Other Health-Related Factors in Mexican College Students

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**Abstract :** College students are at risk of weight gain and poor dietary habits, and health behaviours established during this period have been shown to track into midlife. They may therefore be an important target group for health promotion strategies, yet there is a lack of literature regarding dietary intakes and associated factors in this group, particularly in middle-income countries such as Mexico. The aim of this exploratory research was to describe and compare reported dietary intakes among nursing and nutrition college students at two public universities in Mexico, and to explore the relationship between demographic, behavioural and other health-related factors and the risk of low diet quality. Mexican college students (n=444) majoring in nutrition or nursing at two urban universities completed questionnaires regarding dietary and health-related behaviours and risks. Dietary intake was assessed via 24-hour recall. Weight, height and abdominal circumference were measured. Descriptive statistics were reported and nutrient intakes were compared between colleges and study tracks using Student's t tests, odds ratios and Pearson chi square tests. Two dietary quality scores were constructed to explore the relationship between demographic, behavioural and other health-related factors and the diet quality scores using binary logistic regression. Analysis was performed using SPSS statistics, with differences considered statistically significant at  $p < 0.05$ . The response rate to the survey was 91%. When macronutrients were considered as a percentage of total energy, the majority of students had protein intakes within recommended ranges, however one quarter of students had carbohydrate and fat intakes exceeding recommended levels. Three quarters had fibre intakes that were below recommendations. More than half of the students reported intakes of magnesium, zinc, vitamin A, folate and vitamin E that were below estimated average requirements. Students studying nutrition reported macronutrient and micronutrient intakes that were more compliant with recommendations compared to nursing students, and students studying in central-north Mexico were more compliant than those studying in southeast Mexico. Breakfast skipping (Adjusted Odds Ratio (OR) = 5.3; 95% Confidence Interval (CI) = 1.2-22.7), risk of anxiety (OR = 2.3; CI = 1.3-4.4), and university location (OR = 1.6; CI = 1.03-2.6) were associated with a greater risk of having a low macronutrient score. Caloric intakes  $< 1800$  kcal (OR = 5.8; CI = 3.5-9.7), breakfast skipping (OR = 3.7; CI = 1.4-10.3), vigorous exercise  $\leq 1$  h/week (OR = 2.6; CI = 1.3-5.2), soda consumption  $> 250$  ml/day (OR = 2.0; CI = 1.2-3.3), unhealthy diet perception (OR = 1.9; CI = 1.2-3.0), and university location (OR = 1.8; CI = 1.1-2.8) were significantly associated with greater odds of having a low micronutrient score. College students studying nursing and nutrition did not report ideal diets, and these students should not be overlooked in public health interventions. Differences in dietary intakes between universities and study tracks were evident, with more favourable profiles evident in nutrition compared to nursing, and North-central compared to Southeast students. Further, demographic, behavioural and other health-related factors were associated with diet quality scores, warranting further research.

**Keywords :** college student, diet quality, nutrient intake, young adult

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