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711 - CULINARY SKILLS AND DIET QUALITY ACROSS METABOLIC OBESITY PHENOTYPES: FINDINGS FROM THE MENU PROJECT

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Resumen

Background/Objectives: Low culinary skills (CS), intensified by the culinary transition and increased intake of ultra-processed foods, may hinder these practices. The role of CS in diet quality and metabolic health across metabolic obesity phenotypes remains underexplored. To investigate the association between CS and diet quality in normal-weight metabolically healthy (NWMH), metabolically healthy obesity (MHO), and metabolically unhealthy obesity (MUO) phenotypes; and to explore associations with adiposity and cardiometabolic indicators.

Methods: Cross-sectional study including 157 adults (20-59 years), classified as NWMH (n = 47), MHO (n = 32), or MUO (n = 78). MUO was subdivided into MUO without metabolic syndrome (MUO-NMS; n = 43) and MUO with metabolic syndrome (MUO-MS; n = 35). Phenotypes were defined by body mass index and altered metabolic syndrome components. Assessments included anthropometry, body composition (DXA), blood pressure, glycemic and lipid profiles; C-reactive protein, CS (Primary Health Care Domestic Culinary Skills Scale); diet quality (Diet Quality Scale), and cooking habits. Analyses used ANOVA/Kruskal-Wallis/ANCOVA, chi-square tests, and multivariable linear and logistic regression adjusted for age, gender, income, and education.

Results: Participants were mostly women (79%). CS levels were low in 4%, moderately low in 26%, moderately high in 54%, and high in 16%. CS and cooking habits did not differ across phenotypes ($p > 0.05$). In the total sample, 5% had poor or very poor diet quality, 55% good, 39% very good, and 0% excellent. Diet quality scores were higher

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in NWMH (284 ± 33) than in MHO (267 ± 34), MUO-NMS (250 ± 38), and MUO-MS (248 ± 34) ($p < 0.001$). CS were positively associated with diet quality ($R^2 = 0.05$; $p = 0.001$), with a stronger association in MHO ($R^2 = 0.20$; $p < 0.001$). Higher diet quality was inversely associated with MUO-NMS and MUO-MS (~3% lower odds per 1-point increase; $p < 0.001$), and with more favorable adiposity and cardiometabolic profile, particularly in MUO-MS, including lower body fat percentage (β = -3.68;-6.51,-0.86) and fat mass index (β = -3.60;-6.50,-0,67). In MUO-MS, higher CS were associated with lower waist circumference (β = -0.52;-1.03, -0.01).

Conclusions/Recommendations: Higher CS were associated with better diet quality, particularly among individuals with MHO. Diet quality was linked to lower odds of MUO phenotypes and to improve adiposity/cardiometabolic profile, especially in MUO-MS, supporting CS as a potential target for interventions to improve diet quality and metabolic health.

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