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INTRODUCTION: Most instruments assessing nutrition literacy are difficult to apply to less educated individuals, or focus on knowledge rather than skills to make healthier food choices.

OBJECTIVES: To develop a photograph-based instrument to assess nutrition literacy in Portuguese adults.

METHODOLOGY: A selection of 90 foods/culinary preparations usually consumed in Portugal (including main dishes, soups, sandwiches, savoury pastries/snacks, sweet pastries/desserts, confectionery, cookies/biscuits, bread, charcuterie/cheese and fruit) were photographed and evaluated using stepwise, standardized methods: (1) 9 experts compared photography angles (90º, 45º and 10º from the horizontal plane) and background colours (blue/grey) regarding food recognition and aesthetics; (2) 12 experts and 10 lay persons identified foods, classified them on a 5-point recognition scale, and quantified portions; and (3) the same panels were asked to select the food with the highest energy/sodium content, from combinations of three photographs (two foods with similar estimated contents and one with higher content); experts also classified the relevance of combinations (4-point scale).

RESULTS: The 45º angle obtained the highest recognition score (5.0 in 85.5% of photographs), the grey background was preferred in 92.7% of photographs, 24.7% of foods were misidentified/misdescribed by at least one person, 20.6% obtained a recognition score <4.5, and 37.3% presented a quantity estimation error >25%. Consequently, the 45º angle and grey background were selected; also, 36 photographs were improved, 26 excluded and 21 newly added, resulting in a selection of 85 foods/culinary preparations. Regarding the photographs' combinations, frequency of correct answers was higher in experts (energy: 81.2% vs. 73.5%, p=0.030; sodium: 83.7% vs. 76.3%, p=0.038), and six combinations (7.8%) presented a relevance score <3.0. The instrument obtained after evaluation comprised 79 combinations (55 for energy; 24 for sodium).

CONCLUSIONS: These results allow proceeding towards validation of an innovative instrument that enables an easy and equitable assessment of nutrition literacy across the Portuguese adult population.

CO27. MULTIDIMENSIONAL HEALTH IMPACT OF MULTICOMPONENT EXERCISE AND SUSTAINABLE HEALTHY DIET INTERVENTIONS IN THE ELDERLY (MED-E): BASELINE RESULTS

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INTRODUCTION: Data concerning the combined effect of diet and exercise interventions on overall health in the elderly are scarce.

OBJECTIVES: The MED-E project's primary aim was to assess the effect of 3-month sustainable healthy diet (SHD) and multicomponent training (MT) interventions on several health outcomes in the elderly.

METHODOLOGY: A quasi-experimental study assigned older adults into four groups: (1) SHD, (2) MT, (3) SHD + MT, or (4) control group (CG). The SHD intervention included a weekly mixed food supply with nuts, pulses, olive oil and oily fish and individual and group sessions about a SHD. The MT groups were submitted to 50-min exercise sessions three times a week. The outcomes included blood biomarkers, metabolic profile alterations, dietary intake and nutritional adequacy, physical activity (PA) and fitness data, anthropometry and body composition measured by Dual X-ray absorptiometry (DXA), cognitive function, quality of life, and geographical data, assessed pre- and post-intervention.

RESULTS: Preliminary baseline results show that 73,6% of the participants (n=87) were female and had a mean (±SD) age of 72.79 (±5.07) years. The participants had a mean BMI of 28.8 (±4.26) kg/m², a mean total fat percent of 39.8 (±6.74) and a mean waist-to-hip ratio of 0.89 (±0.07). The mean PREDIMED score was 9.34 (±1.73), suggesting a Mediterranean Diet moderate adherence. Regarding physical activity, approximately 43% of the participants have not engaged in moderate-to-vigorous PA, assessed by the International Physical Activity Questionnaire - Short Version (IPAQ-SV). Chi-square tests were performed and no significant differences were found between groups for most of the outcomes.

CONCLUSIONS: The MED-E project's baseline results will add knowledge, help strengthen the current evidence and measure the impact of the importance and beneficial contribution of combined SHD and MT interventions as complementary approaches to healthy ageing strategies.

CO28. THE QUALITY OF THE DIET OF PREGNANT WOMEN AND ANTHROPOMETRIC OUTCOMES OF NEWBORNS: A RETROSPECTIVE COHORT STUDY

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INTRODUCTION: Maternal dietary pattern plays a key-role in pregnancy outcomes, including the offspring's health. However, the specific dietary requirements for best fetal growth and development remain unknown.

OBJECTIVES: To understand the association between the Healthy Eating Index (HEI) of pregnant women and the newborn's health.

METHODOLOGY: A Portuguese retrospective cohort, involving 914 parturient from 2 hospitals, was carried out between 2017 and 2019, after Ethical approvement (Ref.:3i30-16, 91/18, 47/2018, 177/19). The HEI was calculated using parturient's food frequency questionnaire and newborns's anthropometric data were collected by birth process. Associations were studied using adjusted linear regression.

RESULTS: The median HEI was 58.8 (P25=52.6,P75=65.9) points. For each point increase in HEI, there is an increase in weight (β=0.10, CI=0.64,8.17, p=0.02) and in head circumference (β=0.10, CI=0.00,0.04, p=0.02) for boys; in Z-length (β=0.09, CI=0.00,0.02, p=0.04) for girls; and a decrease in BMI (β -0.13, CI=-0.12,-0.03, p<0.01), for both gender.

CONCLUSIONS: The quality of the pregnant's diet influences the newborn's anthropometric outcomes, suggesting an intergenerational transmission of risks, worthy of further research.

64

RESUMOS COMUNICAÇÕES ORAIS | XXII CONGRESSO DE NUTRIÇÃO E ALIMENTAÇÃO, 11 E 12 DE MAIO, 2023
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