

categorised as <16 kgF in women and <27 kgF in men according to the revised European Working Group on Sarcopenia in Older People consensus. New York Heart Association (NYHA) functional classes were registered. Ordinal regression models were computed with three categories of NYHA as dependent variable: NYHA I, NYHA II, and NYHA III (reference category). The model included sex, age, comorbidities (diabetes, dyslipidaemia, hypertension), incidental stroke, congestion, and atrial fibrillation as independent variables. The results are expressed as cumulative odds ratio (OR) and respective 95% confidence intervals (CI).

RESULTS: Data from 207 ambulatory HF patients were analysed (44.4% women, 71±12 years old). 74.4% of the women and 68.5% of the men presented low HGS values. Mean HGS was 19.1±8.4 kgF, (men: 23.7±8.0 kgF; women: 13.3±12.9 kgF, $p<0.001$). A total of 28.1%, 56.8% and 15.1% were in NYHA class I, II and III, respectively. For every 1 kgF increase in HGS, the likelihood of being allocated in a higher NYHA class decreased by 8% (OR=0.92; 95%CI=0.86, 0.98).

CONCLUSIONS: In this study, higher HGS was associated with better NYHA functional class in ambulatory HF patients. Further investigations regarding the possible prognostic importance of HGS in these patients are warranted.

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CO16. THE SARC-F QUESTIONNAIRE SEVERELY MISSCLASSIFIES THE RISK OF SARCOPENIA IN A MULTICENTRE SAMPLE OF AMBULATORY HEART FAILURE PATIENTS

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INTRODUCTION: Sarcopenia is very prevalent in heart failure (HF) and portends worst prognosis. The SARC-F questionnaire, a screening instrument for assessing the risk of sarcopenia, has low sensitivity and high specificity in hospitalised HF patients, but its performance was never tested in ambulatory HF settings.

OBJECTIVES: To study the agreement and validity of the SARC-F questionnaire against diagnosed sarcopenia, and each sarcopenia criteria, in a sample of ambulatory HF patients.

METHODOLOGY: This cross-sectional multicentre study consecutively sampled ambulatory HF patients in three tertiary hospitals. Sarcopenia was screened with SARC-F and diagnosed using the revised European Working Group on Sarcopenia in Older People consensus (EWGSOP2). Hand grip strength (HGS) was measured using a GripWise dynamometer. Muscle mass (MM) was estimated using calf-circumference and mid-upper arm muscle circumference. Gait speed

(GS) was measured. Agreement was calculated using quadratic-weighted Kappa (K) estimations with 95% confidence intervals (95%CI). Validity tests would be performed whenever the agreement was $K \geq 0.60$.

RESULTS: A total of 216 HF outpatients were included (45.4% women, 71.0±12.6 years old). The left ventricle ejection fraction was reduced, mildly reduced and preserved in 42.4%, 21.2%, and 36.5% of patients, respectively. SARC-F attributed risk of sarcopenia to 33.3%, 11.9% were diagnosed with sarcopenia, 71.1% had low HGS, 13.1% had low muscle mass and 46.8% had low gait speed. Agreement between SARC-F and sarcopenia ($K=0.06$; 95%CI=0.0-0.16), low HGS ($K=0.17$; 95%CI=0.09-0.25), low MM ($K=0.04$; 95%CI=0.0-0.14), and low GS ($K=0.39$; 95%CI=0.29-0.48), was consistently very low, hence, validity tests were not performed.

CONCLUSIONS: The SARC-F questionnaire was inadequate to screen for sarcopenia among these outpatients with chronic HF. Instead, HGS <16 kgF in women and <27 kgF in men, should be used to identify probable sarcopenia according to EWGSOP2 in ambulatory settings and to start immediate intervention.

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CO17. WHICH FREE FAT MASS BIOIMPEDANCE REGRESSION EQUATION BETTER ESTIMATES DXA-DERIVED LEAN BODY MASS IN A SAMPLE OF HEALTHY COMMUNITY-DWELLING PORTUGUESE INDIVIDUALS?

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INTRODUCTION: Bioelectric impedance analysis (BIA) relies on regression equations to estimate fat free mass (FFM), and while equations for older adults and/or hospitalised individuals are widely used in research and clinical settings, the most appropriate equations for estimating FFM of Portuguese community-dwelling healthy adults are not described in the literature.

OBJECTIVES: To identify the existing BIA regression equations that better estimate FFM in a healthy, community-dwelling sample of Portuguese adults, using dual energy x-ray absorptiometry (DXA)-derived total lean body mass (LBM) as reference.

METHODOLOGY: A convenience sample of community-dwelling individuals ≥ 18 years old, with no severe, long-term or end-stage chronic diseases, was selected. Total LBM was estimated by dual energy x-ray absorptiometry (DXA) using a Hologic Horizon-Wi densitometer. Bioelectrical resistance and reactance were measured with an ImpediMed SFB7 spectroscope (256 frequencies between 3 kHz and 1000 kHz), and were used to calculate FFM estimates using 9 gender-specific equations (Deurenberg, Kyle, Sun, Gray, Reubenoff, Lukaski, Matias, Chumlea, Houtkooper) which were compared with DXA-derived LBM using Pearson correlation and t-tests for paired samples. Continuous variables are presented in means \pm standard deviations.

RESULTS: A total of 335 individuals (aged 39.0 ± 14.2 years old, age range 18-79 years, 67% women) were included, with a body mass index of 23.7 ± 3.7 kg.m⁻² and DXA-derived total body fat of $28.4 \pm 8.4\%$. LBM was 47.1 ± 11.16 kg. FFM estimates ranged from 43.61 ± 9.52 kg (Reubenoff) to 51.14 ± 12.44 kg (Matias). The Gray and the Lukaski equations conveyed the closest approximation to LBM (47.31 ± 10.11 kg, $r=0.943$, mean difference -0.20 ± 3.73 kg, $t=-0.75$, $p=0.344$, and 47.33 ± 10.6 kg, $r=0.956$, mean difference -0.23 ± 3.28 kg, $t=-1.21$, $p=0.227$, respectively).

CONCLUSIONS: The Gray *et al.* (1989) and the Lukaski *et al.* (1991) equations were precise at estimating FFM from BIA in community-dwelling healthy Portuguese individuals. Further agreement analysis and external validity of these results are warranted.

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CO18. DIETARY PATTERNS FROM CHILDHOOD INTO EARLY ADOLESCENCE: ASSESSING THE STABILITY OF HEALTHY AND SUSTAINABLE DIETS

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INTRODUCTION: Healthy diets from sustainable food systems are warranted across life, however little is known about their tracking with time, specifically in pediatric ages.

OBJECTIVES: To assess the stability of healthy and sustainable diets from childhood into early adolescence.

METHODOLOGY: Participants were 2951 children from Generation XXI cohort, who provided 3-day food diaries on at least 2 follow-ups considering the 7, 10, and 13 years-old. Adherence to the Eat-Lancet dietary recommendations was assessed with the World Index for Sustainability and Health (WISH) adapted for pediatrics. WISH includes 13 food groups (grains, vegetables, fruits, dairy, red meat, fish, eggs, white meat, legumes grains, nuts, unsaturated fats, saturated fats, soft drinks and added sugars) with a variation range 0-130 (the higher the score, the greater the adherence to a healthy and sustainable diet). Mixed effects models were used to assess the trajectory over time with an interaction by sex. The model included two linear and quadratic fixed effects and a random intercept per individual. Intra Class Correlation coefficients (ICCs) were calculated to assess stability across age.

RESULTS: WISH mean scores at ages 7, 10, and 13, were 59.9, 53.2, and 48.7, respectively. The WISH score had a stability of 24% (ICC=0.24) with a declining trend across age (β' for age= -2.43 ; 95%CI-2.84, -2.03) from the ages 7 to 13. However, a deceleration of the decrease as children aged was observed (β' for the quadratic term of age= 0.12 ; 95%CI 0.06, 0.18). This downward trend was different

by sex: WISH scores declined more rapidly for boys than for girls between the ages of 7 and 13 (β' for sex= -0.26 ; 95%CI-0.48, -0.05).

CONCLUSIONS: Diets become less healthy and sustainable from childhood into adolescence, especially for boys, with a greater decline between the ages of 7 and 10. These findings emphasize the need to invest more in the promotion of better diets.

CO19. SEX DIFFERENCES IN THE ASSOCIATION BETWEEN PERCEIVED SOCIAL SUPPORT AND ADHERENCE TO THE MEDITERRANEAN DIET: PRELIMINARY RESULTS FROM THE MIND-MATOSINHOS TRIAL

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INTRODUCTION: Social support is a main determinant of healthy ageing. Its association with healthy eating habits, such as Mediterranean diet (MD) adherence, has been suggested. However, there is a lack of studies addressing this relationship among adults at high risk of dementia, especially exploring sex differences.

OBJECTIVES: To estimate the association between perceived social support and MD adherence among community-dwelling adults at high risk of dementia, according to sex.

METHODOLOGY: This cross-sectional study included baseline data from 126 participants in a randomized controlled trial to assess the effectiveness of non-pharmacological interventions to prevent cognitive decline (MIND-Matosinhos, Registration number: NCT05383443). Data on sociodemographics, lifestyles, health, anthropometrics and cognitive performance were collected in 2020/2022. Perceived social support was measured using the 3-Item Oslo Social Support Scale (OSSS-3), and good adherence to the MD was defined using the Portuguese version of the Mediterranean Diet Adherence Screener (MEDAS) questionnaire (≥ 10 points).

Stratified associations by sex between perceived social support and MD adherence were calculated as age- and education-adjusted Odds Ratios (OR) and 95% Confidence Intervals (95% CI) using logistic regression.

RESULTS: Participants had a median age of 70 years (range: 24-83 years), and 58.7% were female. High adherence to the MD was observed among 14.9% of females and 17.3% of males. For both groups, the median OSSS-3 sum score was 11.0 (Interquartile Range=9-12). Among men, higher OSSS-3 sum scores were associated with good adherence to the MD (OR=2.23; 95% CI: 1.06-4.69) but not in women (OR=0.80; 95% CI: 0.57-1.11) (p for interaction=0.01).

CONCLUSIONS: Our preliminary results prompt a call for more in-depth research to explore these sex differences and their implications for designing interventions that promote healthy ageing. A larger sample size is needed to enhance our understanding of the complex relationship between social support and adherence to the MD in this vulnerable population.

CO20. A FOOD-LEVEL APPROACH TO IDENTIFY SUSTAINABLE FOODS AMONG THE MOST CONSUMED BY THE PORTUGUESE ADULT POPULATION

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