C.O.
COMUNICAÇÕES ORAIS

CO1. SUSTAINABILITY OF THE PORTUGUESE DIETARY PATTERN: A MULTIDIMENSIONAL ASSESSMENT USING THE DIETARY PATTERN SUSTAINABILITY INDEX (DIPASI)

Joana Margarida Bôto[1-4]; Belmira Neto[4,5]; Vera Miguéis[3]; Ada Rocha[1]

[1] GreenUPorto - Sustainable Agrifood Production Research Centre/Inov4Agro, Faculty of Nutrition and Food Sciences, University of Porto

[2] Faculty of Sciences, University of Porto

[3] InescTec - Institute of Systems and Computer Engineering, Technology and Science, Faculty of Engineering, University of Porto

[4] LEPABE - Laboratory for Process Engineering, Environment, Biotechnology and Energy, Faculty of Engineering, University of Porto

[5] ALiCE - Associate Laboratory in Chemical Engineering, Faculty of Engineering, University of Porto

INTRODUCTION: The transition to sustainable dietary patterns that balance nutritional well-being and environmental impact is essential. Assessing the sustainability of diets requires a multidimensional approach integrating environmental, nutritional, and economic factors.

OBJECTIVES: This study aimed to evaluate the environmental, nutritional and economic sustainability of the Portuguese dietary pattern by applying the Dietary Pattern Sustainability Index (DIPASI), i.e. a multidimensional indicator measuring the percentage deviation of an individual's diet from a reference diet.

METHODOLOGY: DIPASI was applied to dietary data from the Portuguese National Food, Nutrition, and Physical Activity Survey (IAN-AF 2015-2016), which included 2999 adults (18–64 years) and covered 1492 consumed food products. The Mediterranean diet was chosen as the reference to assess the sustainability of the Portuguese dietary pattern using DIPASI. DIPASI integrates three sub-scores: the environmental score calculated as a weighted mean of carbon footprint, water footprint, and land use, following a European Commission weighting proposal; the nutritional score assessed using the Nutritional Rich Diet 9.3 score; and the economic score evaluated based on diet cost. The final DIPASI score was obtained as the arithmetic mean of the three sub-scores, where higher values indicate greater alignment with the Mediterranean diet's sustainability profile.

RESULTS: Findings revealed that, on average, the Portuguese dietary pattern have a higher environmental impact (CF: 4.32 kg CO2eq/day, WF: 3162.88 L/day, LU: 7.03 m²/day), lower nutritional quality (NRD9.3: 334), and higher cost (6.65 €/day) compared to the Mediterranean diet (CF: 3.30 kg CO2eq/day, WF: 2758.84 L/day, LU: 3.67 m²/day, NRD9.3: 668, cost: 5.71 €/day). Only 4% of individuals showed no or positive deviation (>-0.5%) from the Mediterranean diet.

CONCLUSIONS: Most Portuguese individuals exhibit lower dietary sustainability compared to the Mediterranean diet, reflecting dietary shifts away from traditional Mediterranean patterns. The results highlight the need for policy interventions promoting healthier and more sustainable food choices.

CO2. HEALTH PROMOTION PROGRAM AMONG WORKERS FROM A CATERING COMPANY: EFFECT ON FOOD CONSUMPTION AND ADEHERENCE TO THE MEDITERRANEAN DIET

Sara Fernandes[1]; Bruno Oliveira[1]; Pedro Graça[1,2]; Sara Rodrigues[1,2]

[1] Faculty of Nutrition and Food Sciences of the University of Porto

[2] EPIUnit – Epidemiology Reserarch Unit – Institute of Public Health of the University of Porto

INTRODUCTION: Health promotion programs in the workplace are crucial for increasing well-being and productivity. Diet plays a key role in preventing chronic diseases, and the Mediterranean Diet (MD) is well-known for its health benefits. However, adherence to the MD has decreased and remains low in Portugal.

OBJECTIVES: To evaluate whether participation in a workplace health promotion program focusing on hypertension, hypercholesterolemia, diabetes mellitus, and occupational stress leads to significant changes in employee food consumption.

METHODOLOGY: This longitudinal quasi-experimental study was conducted in a collective catering company in Portugal, involving employees from Porto (intervention group) and Lisbon (control group). Data were collected between March 2021 and March 2022 through validated questionnaires, assessing sociodemographic, lifestyle, and dietary indicators (food frequency questionnaire, MDScore). The six-month intervention included physical exercise, newsletters, workshops, and webinars. Statistical analysis was performed using SPSS®. Descriptive statistics and hypothesis tests (T-Test, Wilcoxon) were applied to assess dietary changes.

RESULTS: In the intervention group, from the first to the final recall, there were significant reductions in the consumption of cereals and cereal products (-119.44g; p=0.004), sweet foods and pastries (-13.55g; p=0.024), soft drinks, juices, and nectars (-61.4g; p=0.037), alcoholic beverages (-12.5g; p=0.002), sodium (-276.3mg; p<0.001), and fiber (-6.56g; p<0.001). Comparing the groups based on the components of the MDScore, significant differences were observed in the intervention group, with decreased consumption of alcohol (p=0.017). In the control group, consumption of legumes (p<0.001) and cereals (p<0.001) decreased, while alcohol intake increased (p=0.008). No statistically significant changes were found in other food groups based on the MDScore.

CONCLUSIONS: The health promotion program resulted in slightly improvements in the diet of the intervention group, particularly reductions in sodium and unhealthy foods. Future interventions should further emphasize fiber, polyunsaturated fats, and fresh fruit to enhance dietary adherence and long-term health benefits.

CO3. MEDITERRANEAN DIET ENRICHED WITH FERMENTED FOODS IMPROVES DISEASE ACTIVITY AND SELF-REPORTED OUTCOMES IN RHEUMATOID ARTHRITIS: INTERIM ANALYSIS OF THE TASTY TRIAL

Sofia Charneca[1]; Ana Hernando[1]; Inês Almada Correia[2,3]; Joaquim Polido-Pereira[2-4]; Roberto Pereira da Costa[4]; Augusto Silva[4]; Adriana Vieira[3]; Manuel Silvério António[4]; Margarida Lucas Rocha[5]; João Eurico Fonseca[2-4]; Patrícia Costa-Reis[2,3,6]; Catarina Sousa Guerreiro[1,7]

[1] Nutrition Lab, Faculty of Medicine, University of Lisbon, Lisbon Academic Medical Centre

[2] Faculty of Medicine, University of Lisbon, Lisbon Academic Medical Centre

[3] GIMM - Gulbenkian Institute for Molecular Medicine

[4] Rheumatology department, ULS Santa Maria, Lisbon Academic Medical Centre

[5] Rheumatology department, ULS Algarve

[6] Pediatric Rheumatology unit, ULS Santa Maria, Lisbon Academic Medical Centre

[7] Environmental Health Institute, Faculty of Medicine, University of Lisbon, Lisbon Academic Medical Centre

INTRODUCTION: An increasing number of studies have associated diet and nutritional status with Rheumatoid Arthritis (RA) outcomes.

OBJECTIVES: To investigate whether a dietary intervention based on a typical

TABLE 1

Variable description and analysis at baseline and at the end of the trial

	MEDDIET+ GROUP (n=16)			CONTROL GROUP (N=16)		
	BASELINE	12 WEEKS	p-VALUE	BASELINE	12 WEEKS	p-VALUE
Waist circumference (cm)	92.7 ± 11.0	87.3 ± 10.3	**<0.001**[a]	93.4 ± 9.9	92.9 ± 9.9	0.356[a]
BMI (kg/m^2)	30.2 ± 6.3	28.8 ± 6.4	**<0.001**[a]	30.6 ± 5.9	30.6 ± 5.9	0.824[a]
DAS28-ESR*	3.9 ± 1.1	3.7 ± 0.8	0.311[a]	4.2 ± 0.7	4.0 ± 0.8	0.379[a]
DUS-GS	21.1 ± 11.9	13.3 ± 7.5	**0.004** [a]	18.9 ± 8.1	18.3 ± 10.2	0.841[a]
DUS-PD	0.5 (4.0)	0.0 (0.0)	**0.011**[b]	1.0 (2.0)	0.0 (1.0)	0.570[b]
HAQ	1.6 (0.6)	1.3 (0.7)	**0.002**[b]	1.4 (0.6)	1.4 (0.8)	0.824[b]
SF-36						
Physical functioning	46.9 ± 20.5	61.9 ± 20.2	**<0.001**[a]	62.8 ± 20.7	69.4 ± 23.0	0.080[a]
Physical role limitations	54.3 ± 18.2	62.5 ± 20.9	0.141[a]	61.7 ± 32.3	62.9 ± 29.4	0.867[a]
Pain	48.6 ± 18.1	59.9 ± 16.2	**0.040**[a]	48.8 ± 21.6	50.1 ± 21.3	0.796[a]
General health perceptions	43.6 ± 15.2	55.2 ± 15.8	**0.004**[a]	52.8 ± 13.1	57.6 ± 21.0	0.284[a]
Vitality	55.1 ± 13.5	53.5 ±13.5	0.677[a]	50.8 ± 13.1	48.4 ± 15.7	0.520[a]
Social functioning	62.5 (21.9)	75.0 (43.8)	0.080[b]	75.0 (75.0)	87.5 (56.3)	0.118[b]
Emotional role limitations	75.0 (39.6)	75.0 (39.6)	0.308[b]	62.5 (41.7)	66.7 (25.0)	0.801[b]
Mental health	60.9 ± 14.1	70.6 ± 16.8	**0.006**[a]	61.9 ± 25.0	68.1 ± 16.8	0.208[a]

Values are presented as mean ± standard deviation or median (interquartile range) according to their distribution.
[a] Paired samples T Test
[b] Wilcoxon signed-rank test
*Missing values: Intervention group (n=2) and control group (n=1)
BMI: Body mass index; DAS28-ESR: Disease activity score incorporating erythrocyte sedimentation rate
DUS-GS: Doppler ultrasound score for grey scale; DUS-PD: Doppler ultrasound score for power doppler
HAQ: Health assessment questionnaire
MedDiet+: Mediterranean Diet enriched in fermented foods
SF36: Short Form Health Survey Questionnaire

Mediterranean Diet enriched with fermented foods (MedDiet+) can impact disease activity, functional status and quality of life in RA patients (an interim analysis of the TASTY trial).

METHODOLOGY: A total of 32 RA patients (60±11 years-old; 94% female) were recruited at Santa Maria Hospital, Lisbon, Portugal, and randomly assigned to either the MedDiet+(n=16) or the control (n=16) groups. The nutritional intervention (12-weeks) included a personalised dietary plan following the MedDiet+ pattern, educational resources, food basket deliveries, and clinical culinary workshops, all developed and monitored weekly by registered dietitians. The control group received standardised general recommendations for healthy eating at baseline. Disease activity was assessed using the 28-joints Disease Activity Score incorporating erythrocyte sedimentation rate (DAS28-ESR) and Doppler ultrasound scores for grey scale (DUS-GS) and power doppler (DUS-PD) of 32-joints. Functional status and quality of life were assessed using the Health Assessment Questionnaire (HAQ) and the 36-Item Short Form Health Survey (SF-36), respectively.

RESULTS: The MedDiet+ intervention led to significant improvements in waist circumference (p<0.001), body mass index (p<0.001), DUS-GS (p=0.004), DUS-PD (p=0.011), HAQ score (p=0.002) and four of the eight domains of the SF-36, specifically physical functioning (p<0.001), pain (p=0.040), general health perceptions (p=0.004), and mental health (p=0.006) (Table 1). No significant changes were observed for DAS28-ESR or the remaining four domains of the SF-36 (physical role limitations, vitality, social functioning, emotional role limitations). In the control group, no significant differences were found for any of the outcomes assessed between baseline and 12-weeks (Table 1).

CONCLUSIONS: The MedDiet+ intervention improved nutritional status, ultrasound scores, functional status, general health perceptions, and mental health in RA patients, sustaining the interest in keeping the trial ongoing.

CO4. MANUAL DE EQUIVALENTES PARA O CÁLCULO DE PLANOS ALIMENTARES HIPOPROTEICOS

Luísa Campos[1]; Sílvia Pinhão[1,2]; Rui Poínhos[1]; Margarida Dias[2]

[1] Faculdade de Ciências da Nutrição e Alimentação da Universidade do Porto
[2] Unidade Local de Saúde São João

INTRODUÇÃO: Diversas condições clínicas implicam um controlo rigoroso do aporte proteico, como doenças renais, hepáticas, entre outras. Algumas patologias requerem ainda o controlo da ingestão de certos micronutrientes, nomeadamente sódio, fósforo e potássio e a contabilização do aporte hídrico. Para maximizar a eficácia das intervenções nutricionais/ dietéticas, devem estar devidamente definidas as quantidades de alimentos que constituem equivalentes considerando estes nutrientes.

OBJETIVOS: Atualizar uma ferramenta que possa auxiliar os nutricionistas no cálculo de planos alimentares hipoproteicos, assegurando a adequabilidade energética e nutricional com especial ênfase no ajuste proteico e promovendo a uniformidade nos cálculos, além de fornecer várias opções alimentares equivalentes em macronutrientes, alguns micronutrientes e água.

METODOLOGIA: Foi desenvolvida uma base de dados com base na Tabela da Composição de Alimentos Portuguesa (TCAP), complementada com informações da USDA e a média de rótulos de produtos. Os alimentos foram agrupados com base nos macronutrientes equivalentes e categorizados em grupos específicos. Foram calculadas as porções equivalentes de cada alimento.

RESULTADOS: Desenvolveu-se uma Tabela Principal com alimentos base a ser incluídos e duas tabelas adicionais ("Alimentos extra" e "Alimentos com baixo teor proteico") com detalhe da composição nutricional em macronutrientes, sódio, fósforo, potássio e água, por grupos de alimentos e descritos os respetivos equivalentes alimentares. O desenvolvimento deste manual permite o cálculo de planos alimentares adequados à exigência clínica de doentes que necessitem de uma monitorização rigorosa da ingestão proteica, permitindo a contabilização nutricional para atingir as recomendações específicas de cada patologia.

CONCLUSÕES: A ferramenta oferece suporte essencial aos nutricionistas no desenvolvimento de planos alimentares hipoproteicos, assegurando a adequação energética e nutricional e promovendo a uniformidade nos cálculos, além de oferecer diversidade de opções alimentares equivalentes em macronutrientes, alguns micronutrientes e água.

CO5. THE HESDIET-B INDEX: A VALIDATED TOOL FOR ASSESSING HEALTHY AND SUSTAINABLE DIETARY BEHAVIORS IN ADOLESCENTS

Beatriz Teixeira[1,2]; Milton Severo[2,3]; Cláudia Afonso[1,2]; Andreia Oliveira[2,4]

[1] Faculdade de Ciências da Nutrição e Alimentação da Universidade do Porto

[2] EPIUnit ITR, Instituto de Saúde Pública da Universidade do Porto

[3] Instituto de Ciências Biomédicas Abel Salazar da Universidade do Porto

[4] Faculdade de Medicina da Universidade do Porto

INTRODUCTION: Promoting healthy and sustainable dietary behaviours in adolescents is emerging, and validated assessment instruments are needed.

OBJECTIVES: To develop and validate the Healthy and Environmentally Sustainable Dietary Behaviours Index (HESDiet-B Index), a self-administered tool for adolescents.

METHODOLOGY: A cross-sectional study was conducted with Portuguese adolescents aged 10-18 years, organized into two phases: 1) pretest of the instrument to ensure clarity and relevance. Experts reviewed its content validity, and feedback was obtained from 38 adolescents; 2) assessment of the instrument's validity and reproducibility in 310 adolescents. Cronbach's alpha was used to evaluate internal consistency, and principal component analysis was used to identify the number of dimensions and items associated with each dimension. Pearson and Spearman correlation coefficients and the student's t-test were applied to validate the theoretically related constructs concerning the two anticipated dimensions. The Bland-Altman method was used to assess agreement, and the Intraclass Correlation Coefficient (ICC) to evaluate the test-retest reliability of the instrument, after application 15 days apart.

RESULTS: Two dimensions were identified: Food Consumption (22 items) and Environmental Concerns (9 items) in the HESDiet-B Index, comprising 31 items. The Cronbach´s alpha was 0.70 and 0.61, respectively for each dimension. A lower Body Mass Index, higher parental education, and sports practice were associated with higher scores in the Food Consumption dimension while being a female was associated with higher scores in the Environmental Concerns dimension. Additionally, these dimensions presented positive correlations with other tools measuring similar constructs (World Index for Sustainability and Health for Food Consumption and the New Ecological Paradigm for Environmental Concerns). Test-retest reliability was satisfactory (ICC=0.821 for Food Consumption and ICC=0.684 for Environmental Concerns). Bland-Altman plots confirmed agreement between repeated measures.

CONCLUSIONS: The HESDiet-B Index is a practical, valid and reproducible instrument for assessing adolescent's adherence to healthy and environmentally sustainable dietary dimensions.

CO6. COMPOSIÇÃO CORPORAL EM JOVENS FUTEBOLISTAS: DIFERENÇAS ENTRE ESCALÕES E SEXO

Ruben Silva[1]; Ana Carolina Fernandes[1]; Margarida Cunha[1]; Ricardo Neves[1]; Rui Dias[1]; João Bastos[1]; André Maia Silva[1]; César Leão[1-3]

[1] Futebol Clube de Paços de Ferreira

[2] Escola Superior de Saúde e Desporto do Instituto Politécnico de Viana do Castelo

[3] Sport Physical Activity and Health Research & Innovation Center

INTRODUÇÃO: O desenvolvimento ao longo da adolescência tem impacto na composição corporal. Monitorizar essas alterações ajuda a identificar desvios na maturação, como atrasos no desenvolvimento muscular ou excessos de massa gorda, que podem impactar a saúde e/ou o desempenho.

OBJETIVOS: Caracterizar a composição corporal (peso, altura, índice de massa corporal (IMC), massa muscular e massa gorda) em jovens atletas de futebol e comparar resultados entre escalões.

METODOLOGIA: Foram avaliados no início da época 102 jovens atletas (14 raparigas e 88 rapazes) inscritos num clube de futebol, distribuídos por 5 escalões (sub15 a sub19). Foi realizada uma avaliação antropométrica do peso (kg), estatura (cm), IMC, massa gorda (%) e massa muscular (kg), baseada no protocolo ISAK.

RESULTADOS: O peso e a estatura apresentaram diferenças significativas entre escalões, especialmente entre o sub15 e sub19 ($p < 0,05$), enquanto o IMC manteve-se uniforme, sugerindo um aumento proporcional de peso e altura. A composição corporal revelou diferenças marcantes na massa gorda ($p = 0,001$) e massa muscular ($p = 0,002$) entre escalões, apontando alterações relacionadas com o desenvolvimento maturacional. Adicionalmente, entre atletas do escalão sub19 de diferentes géneros, observaram-se diferenças significativas no peso, altura, massa muscular e massa gorda ($p < 0,05$), refletindo a influência de fatores maturacionais associados ao género.

CONCLUSÕES: As alterações observadas, nomeadamente na massa muscular e na massa gorda, esperadas para o desenvolvimento maturacional, confirmam o impacto do escalão na composição corporal. Estes resultados reforçam a importância de um acompanhamento personalizado e contínuo, ajustando estratégias de treino e nutrição às necessidades individuais de cada escalão e género.

CO7. VALIDAÇÃO DA ESCALA DE LITERACIA DA ALIMENTAÇÃO E NUTRIÇÃO (E-LAN)

Maria João Batalha[1,2]; Camila Rosinha[3]; Catarina Amaro[3]; Mariana Couto[3]; Mariana Fidalgo[3]; Ana Rita Pedro[2]; Sara Simões Dias[1,3]

[1] ciTechCare – Centro de Inovação em Tecnologias e Cuidados de Saúde do Politécnico de Leiria

[2] ENSP-NOVA – Escola Nacional de Saúde Pública da Universidade Nova de Lisboa

[3] ESSLei – Escola Superior de Saúde do Politécnico de Leiria

INTRODUÇÃO: A literacia alimentar e nutricional são componentes essenciais da literacia em saúde. A Escala de Literacia Alimentar e Nutricional (E-LAN) já foi traduzida e adaptada transculturalmente para Português, no entanto carece de validação.

OBJETIVOS: Validação da E-LAN em crianças portuguesas entre os 10 e 12 anos.

METODOLOGIA: A E-LAN é constituída por 49 itens (42 em escala de *likert* e 7 escolhas múltiplas), distribuídos por sete subescalas: (1) compreensão, (2) conhecimento, (3) literacia funcional, (4) literacia interativa, (5) literacia na escolha, (6) literacia crítica e (7) literacia sobre rotulagem. As duas primeiras avaliam o domínio cognitivo, enquanto as restantes avaliam o domínio das competências. A fiabilidade da escala foi avaliada através da consistência interna, utilizando o alfa de *Cronbach* (α), e a sua estrutura interna foi validada por meio de uma análise fatorial confirmatória (AFC). A amostra foi composta por 165 participantes (10-12 anos), recrutados por conveniência numa escola do concelho de Alcobaça. O questionário foi aplicado presencialmente, recorrendo a uma abordagem de leitura orientada.

RESULTADOS: Após uma análise inicial, decidiu-se remover alguns itens devido a problemas de consistência interna e/ou à fraca associação com o construto a ser avaliado. A escala final, ajustada para 38 itens, demonstrou uma boa consistência interna ($\alpha = 0,889$), e a AFC revelou um bom ajuste para a estrutura fatorial proposta. Todos os 38 itens apresentaram cargas fatoriais superiores a 0,30, confirmando a sua adequação e relevância.

CONCLUSÕES: O estudo confirmou a validade da versão revista da escala E-LAN, composta por 45 itens (38 em escala de *likert* e 7 escolhas múltiplas), distribuídos por sete subescalas que avaliam os domínios cognitivo e de competências. E-LAN é uma ferramenta concisa e apresenta propriedades psicométricas adequadas para avaliar o nível de literacia alimentar e nutricional na população infantil portuguesa.

CO8. KNOWLEDGE AND PURCHASE OF IODIZED SALT: STUDYING BEHAVIOURAL DETERMINANTS AND INTENTION BEFORE AND AFTER A SIMPLE COMMUNICATION

Sarai Isabel Machado[1,2]; João Belo[1,2]; Susana Roque[1,2]; Maria Lopes--Pereira[1-3]; Maria José Costeira[1,2,4]; Nuno Borges[5]; Patrício Costa[1,2]; Joana Almeida Palha[1,2]

[1] Life and Health Sciences Research Institute (ICVS), School of Medicine, University of Minho

[2] ICVS/3B's - PT Government Associate Laboratory

[3] Hospital of Braga

[4] Hospital Senhora da Oliveira

[5] Faculty of Nutrition and Food Sciences, University of Porto

INTRODUCTION: Salt iodization is considered the most cost-effective measure to prevent iodine deficiency. In Portugal household usage of iodized salt is dependent on consumers choice and sales reflect its minor contribution to iodine intake. Enhancing concerns for vulnerable groups, as pregnant women, that remain iodine deficient despite adherence to supplementation.

OBJECTIVES: To evaluate knowledge, behavioural determinants and purchase of iodized salt before and after an informative communication on the benefits of iodized salt.

METHODOLOGY: A questionnaire based on the theory of planned behaviour was developed and applied to an online panel representative of the Portuguese population for sex, age and education. A brief positive message informing on the benefits of iodine and its availability through iodized salt (intervention) or a neutral message on the various types of salts, including iodized salt (control) were randomly assigned to the respondents. The reapplication was performed to the same panel after eight months.

RESULTS: 485 panellists completed the first phase, 63% reported having previous knowledge on iodized salt and 23% purchasing it. Attitudes regarding iodized salt were significantly different in the intervention (n=239, M=3.64, SD=0.64) and control group (n=246, M=3.41, SD=0.70), t(483), p<0.001, d=0.31, and also intentions (M=3.74, SD=0.64 vs M=3.46, SD=0.91), t(483), p=0.002, d=0.29. Intention in the intervention group presented a weaker relationship with subjective norms and a stronger relationship with perceived behaviour control. Age, gender, cohabitation with thyroid disease or a recent pregnancy affected intention in both groups. Reapplying the questionnaire, knowledge improved in the intervention group (n=131, p=0.043) with 77% reporting knowledge on iodized salt. No significant difference on actual purchase was found (p=0.405), only 26% reported purchasing it.

CONCLUSIONS: Iodized salt purchase remains low, and despite the intention to purchase iodized salt being greater after a simple positive communication, it is not sufficient for behavioural change.

CO9. INSUFFICIENT HOURS OF SLEEP IS LINKED TO INADEQUATE LIFESTYLE IN CHILDREN - PRELIMINARY RESULTS FROM RUN UP STUDY

Inês Timóteo[1,2]; Vanessa Gonçalves[2,3]; Raul Rosa[4]; Rodrigo Silva[4]; Tomás Aleixo[4]; Gabriela Almeida[4,5]; Inês Castela[2,3]; Diana Teixeira[2,3]

[1] Faculty of Nutrition and Food Sciences of the University of Porto

[2] Comprehensive Health Research Centre (CHRC), NOVA Medical School| Faculdade de Ciências Médicas, NMS|FCM, Nova University of Lisbon

[3] NOVA Medical School|Faculdade de Ciências Médicas, NMS|FCM, Nova University of Lisbon

[4] Department of Sport and Health, School of Health and Human Development, University of Évora

[5] Comprehensive Health Research Centre (CHRC), University of Évora

INTRODUCTION: Despite the well-established role of sleep, nutrition and physical activity in children's health and well-being, behavioural factors associated with insufficient sleep remain unclear.

OBJECTIVES: To identify lifestyle behaviour and clinical factors that may be related to children insufficient sleeping time.

METHODOLOGY: This study included 864 children (53.6% girls; mean age 7.9±1.2 years) from the RUN UP study. Sleep duration, screen time, physical activity-related and dietary habits were parent-reported, while anthropometric measurements followed standard protocols. Children were divided into two groups according to adequacy of sleep duration (<9 vs ≥9 hours/night). Associations between sleep duration, lifestyle behaviour and clinical factors were analysed through Chi-square test and odds ratios with 95% confidence intervals.

RESULTS: Increased screen time (≥2 hours/day) was associated with higher odds of insufficient sleep (TV: OR=1.89 [95%CI 1.33-2.68]; computer games: OR=2.55 [95%CI 1.54-4.23]). Sedentary behaviours were also associated to sleep duration, with children not engaging in sports being 73% more likely to have insufficient sleep (OR=1.73; 95%CI [1.243-2.405]), and those with limited active play (<60 min/day) having 1.6 times higher odds of shorter sleep (OR=1.57; 95%CI [1.14-2.25]). Frequent consumption (≥4 times/week) of sweet and savoury snacks or sugar-sweetened beverages was associated with increased chance of insufficient sleep (OR=1.52 [95%CI 1.09-2.11] and OR=1.82 [95%CI 1.24-2.68], respectively). From a clinical point of view, children with shorter sleep had significantly higher waist (P=0.023) and hip circumferences (P<0.001). Children with overweight had 43% higher odds of insufficient sleep (OR=1.43; 95%CI [1.01-2.02]), while those with cardiometabolic risk were over twice as likely to sleep less than 9 hours (OR=2.13; 95%CI [1.27-3.59]).

CONCLUSIONS: Insufficient sleep is linked to excessive screen time, sedentary behaviour, unhealthy eating, and adverse clinical outcomes in children. Further research should explore its association with sleep quality and other relevant lifestyle factors.

CO10. IMPACTO DA EDUCAÇÃO NUTRICIONAL NA REDUÇÃO DO RISCO DE PERTURBAÇÕES DO COMPORTAMENTO ALIMENTAR EM ADOLESCENTES

Daniela Campelo[1,2]; Rita Soares Guerra[3-5]; Ana Almeida[2]

[1] Faculdade de Ciências da Saúde da Universidade Fernando Pessoa

[2] Divisão de Saúde, Câmara Municipal de Vila Nova de Gaia

[3] FP-I3ID, FP-BHS, Faculdade de Ciências da Saúde da Universidade Fernando Pessoa

[4] LAETA – INEGI / FEUP, Laboratório Associado de Energia, Transportes e Aeroespacial, Instituto de Ciência e Inovação em Engenharia Mecânica e Engenharia Industrial, Faculdade de Engenharia da Universidade do Porto

[5] RISE-Health, Faculdade de Ciências da Saúde da Universidade Fernando Pessoa, Fundação Ensino e Cultura Fernando Pessoa

INTRODUÇÃO: As Perturbações do Comportamento Alimentar (PCA) relacionam-se com distorção da imagem corporal, insatisfação com a mesma e hábitos alimentares errados.

OBJETIVOS: Determinar o risco de PCA em adolescentes, antes e após um programa de educação alimentar; associar características individuais com o risco de PCA.

METODOLOGIA: Realizou-se um estudo de intervenção longitudinal com 5 sessões de educação alimentar a alunos de 15-16 anos de 2 escolas secundárias. Recolheu-se informação sociodemográfica, do estilo de vida, clínica e do estado nutricional com um questionário estruturado de administração direta. No início e final do estudo, avaliou-se o risco de PCA com o *Eating Attitudes Test*, e utilizou-se a escala de silhuetas de *Stunkard*, *Sorensen*, e *Schlusinger* para avaliar a perceção corporal e o desejo de imagem corporal. Determinaram-se as

proporções de adolescentes sem e com risco de PCA, em ambos os momentos; compararam-se as características dos participantes de acordo com a presença ou ausência de risco de PCA (teste do qui-quadrado para variáveis categóricas; teste t de *Student* para amostras independentes ou teste de *Mann-Whitney* para variáveis contínuas; p=0,05).

RESULTADOS: Constituem a amostra 52 adolescentes (34 raparigas, 17 rapazes, 1 não-binário). No início e no final do estudo, 21,2% e 11,5% dos adolescentes apresentavam risco de PCA (-9,6%). Dos adolescentes em risco, 54,5% haviam consumido bebidas alcoólicas *vs*. 22,0% dos sem risco (p=0,034); 45,5% haviam sido diagnosticados com PCA *vs*. 7,3% dos adolescentes sem risco (p=0,002). Os adolescentes em risco de PCA tendiam a subestimar o IMC e exprimiam um maior desejo de o reduzir, no início e no final do estudo.

CONCLUSÕES: O risco de PCA diminuiu entre os adolescentes que participaram no estudo; os alunos em risco de PCA têm uma perceção errada da imagem corporal e insatisfação com a mesma, e uma maior percentagem consome bebidas alcoólicas.

CO11. LINKING SUSTAINABLE DIETARY PATTERNS TO GENERAL AND CENTRAL ADIPOSITY: INSIGHTS FROM THE ADULT PORTUGUESE POPULATION

Mariana Rei[1-4]; Catarina Campos Silva[4]; Duarte Torres[1-3]; Colin Sage[1]; Sara Rodrigues[1-3]

[1] Faculdade de Ciências da Nutrição e Alimentação da Universidade do Porto

[2] EPIUnit - Instituto de Saúde Pública da Universidade do Porto

[3] Laboratório para a Investigação Integrativa e Translacional em Saúde Populacional (ITR) da Universidade do Porto

[4] Faculdade de Medicina da Universidade do Porto

INTRODUCTION: The increasing prevalence of obesity, particularly central adiposity, poses significant public health challenges due to its strong association with non-communicable diseases. In Portugal, central obesity affects over half of the adult population. While unhealthy dietary patterns are key drivers of obesity, sustainable diets may offer protective effects.

OBJECTIVES: To examine the relationship between the Diet Sustainability Score (DSS) and adiposity indicators, including body mass index (BMI) as a measure of general adiposity, and waist-to-height ratio (WHtR) as a measure of central adiposity.

METHODOLOGY: Data from 2287 participants in the National Food, Nutrition, and Physical Activity Survey (IAN-AF 2015-2016) were analyzed. DSS was derived from four dimensions: nutritional quality, environmental impact, economic affordability, and sociocultural acceptability. Logistic regression models, adjusted for sex, age, education, and physical activity, assessed the associations between DSS and both BMI (under/normal weight vs. overweight/obesity) and WHtR (healthy vs. unhealthy central adiposity).

RESULTS: Higher DSS is associated with greater nutrient density (ρ=0.333, p-value <0.001), lower intake of ultra-processed foods (ρ=-0.437, p-value <0.001), reduced environmental impacts (in terms of greenhouse gas emissions (ρ=-0.577, p-value <0.001) and land use (ρ=-0.581, p-value <0.001)), lower diet-related expenses (ρ=-0.556, p-value <0.001), and greater cultural acceptability of diets (ρ=0.504, p-value <0.001). Furthermore, a higher DSS is linked to lower odds of overweight/obesity (OR=0.91, 95%CI=0.88, 0.94) and unhealthy central adiposity (OR=0.91, 95%CI=0.87, 0.95), suggesting that more sustainable dietary choices are associated with a reduced risk of adverse health outcomes.

CONCLUSIONS: These findings underscore the role of sustainable dietary practices in addressing obesity and highlight their relevance for integrated public health strategies. Incorporating nutritional, environmental, economic, and cultural dimensions can support long-term improvements in population health.

CO12. THE ROLE OF LIFESTYLE BEHAVIOURS IN CHILDREN'S MOTOR COMPETENCE: PRELIMINARY RESULTS FROM THE RUN UP STUDY

Vanessa Gonçalves[1,2]; Inês Timóteo[3]; Raul Rosa[4]; Rodrigo Silva[4]; Tomás Aleixo[4]; Inês Castela[1,2]; Gabriela Almeida[4,5]; Diana Teixeira[1,2]

[1] Comprehensive Health Research Centre (CHRC), NOVA Medical School|Faculdade de Ciências Médicas, NMS|FCM, Nova University of Lisbon

[2] NOVA Medical School|Faculdade de Ciências Médicas, NMS|FCM, Nova University of Lisbon

[3] Faculty of Nutrition and Food Sciences of the University of Porto

[4] Department of Sport and Health, School of Health and Human Development, University of Évora

[5] Comprehensive Health Research Centre (CHRC), University of Évora

INTRODUCTION: Motor Competence (MC) is positively associated with several aspects of children's health, yet further studies are needed to explore its association with lifestyle behaviours.

OBJECTIVES: To analyse the association between MC and nutritional status, sedentary behaviours and food consumption in Portuguese school-aged children.

METHODOLOGY: Data were collected from the cross-sectional RUN UP study conducted in 825 children (53.6% boys; mean age 7.9±1.2 years). Children were divided into low MC (<percentile 25, n=196, mean 24.5±8.4) and high MC (≥percentile 75, n=213, mean 71.0±6.2) groups according to the MC total score, assessed by Motor Competence Assessment scoring method. Lifestyle behaviours, including screen time, active play, and sports participation were reported by parents. Nutritional status was evaluated using BMI percentile and body fat distribution measures, while food consumption was assessed by a food propensity questionnaire. Associations were analysed using Chi-square tests and odds ratios with 95% confidence intervals.

RESULTS: Children with lower MC had significantly higher weight, BMI percentile, and waist circumference. Children with overweight had a threefold increased risk of low MC (OR=3.23; 95%CI [2.10-4.98]) compared with those with normal weight, while cardiometabolic risk (waist/height ratio ≥0.55) increased by 8 times the odds (OR=8.00; 95% CI [3.29–19.23]). Insufficient sports activity (<2 hours/week) increased the odds of low MC by 3.54 times (OR=3.54; 95% CI [2.36-5.33]). Notably, high screen exposure (>2 hours/day) and limited active play (<60 min/day) were significantly associated with lower MC (OR=1.99; 95%CI [1.29-3.06] and OR=1.99; 95%CI [1.30-3.04], respectively). Poor dietary habits, including high sweetened juices/soft drinks intake (>4 times/week) and high processed meat intake (>4 times/week) further increased the odds of low MC (OR=1.78; 95%CI [1.06-3.00] and OR=2.13; 95%CI [1.92-2.36], respectively).

CONCLUSIONS: Healthy lifestyle behaviours and adequate nutritional status are associated with higher MC in children, reinforcing the need for early interventions to promote children's health.

CO13. DETERMINANTS AND CHARACTERIZATION OF THE NUTRITIONAL STATUS OF CHILDREN UNDER THE AGE OF 5 ATTENDING THE MATERNAL AND CHILD NUTRITIONAL FOLLOW-UP PROGRAM IN SAO TOME AND PRINCIPE: A LONGITUDINAL STUDY

Patrícia Silva[1]; Francisca Perna[2]; Liliana Afonso[3]; Margarida Liz Martins[1,4-6]

[1] Polytechnic University of Coimbra

[2] Polytechnic University of Leiria

[3] Helpo, Non-Governmental Organisation

[4] H&TRC - Health & Technology Research Center, Coimbra Health School, Polytechnic University of Coimbra

[5] Sports and Physical Activity Research Center, University of Coimbra

[6] Research Centre for Anthropology and Health, University of Coimbra

INTRODUCTION: Child malnutrition is a major public health concern in low- and middle-income countries, particularly among children under five years old.

OBJECTIVES: This study examines factors influencing the nutritional status of children under five enrolled in the Maternal and Child Nutritional Follow-up Programme (PANMI).

METHODOLOGY: A retrospective longitudinal study was conducted on 260 children (0–59 months) in São Tomé and Príncipe, followed by PANMI from 2021 to 2023. Data included child characteristics (sex, age, residence, birth weight, anthropometrics, and feeding practices) and maternal/socioeconomic factors (age, education, employment, income, siblings, twin status, daycare attendance, orphanhood, and alcohol consumption). Nutritional status was assessed using WHO Anthro software, classifying underweight, wasting, and stunting as present when z-scores were < -2 and normal when ≥ -2.

RESULTS: Underweight (30.9%; p=0.009) and stunting (33.3%; p=0.014) were most prevalent in children aged 13–25 months, while wasting peaked at 7–12 months (34.5%; p=0.007). Urban areas had higher underweight (p=0.027) and stunting (p=0.002) prevalence. Low birth weight (LBW) was strongly associated with underweight (78.6%; p<0.001) and stunting (61.2%; p<0.001). Exclusive breastfeeding (60.4%) and weaning at 6–24 months (82.0%) were common. Longer PANMI follow-up improved nutritional outcomes. Wasting (8.3%; p=0.008) and stunting (16.2%; p=0.017) were more frequent in twins. Having 1–2 siblings increased stunting risk (p=0.001). Underweight (6.3%; p=0.046) and stunting (10.5%; p=0.038) were higher among children of alcoholic mothers, while wasting was prevalent in those of non-working mothers (69.1%; p=0.013).

CONCLUSIONS: Key risk factors for malnutrition included LBW, younger age, urban residence, twin status, fewer siblings, orphanhood, maternal alcohol consumption, and unemployment. Exclusive breastfeeding and weaning at 6–24 months also influenced nutritional status. Longer PANMI follow-up was linked to reduced underweight and wasting, reinforcing its role in improving child nutrition.

CO14. DOES IRON AND B12 SUPPLEMENTATION PLAY A ROLE IN DIET-INDUCED CHANGES IN MUSCLE MASS? – FINDINGS FROM THE VEGGIENUTRI CROSS-SECTIONAL STUDY

Cátia Pinheiro[1]; Flávia Silva[2]; Inês Rocha[2]; Carina Martins[3]; Liliana Giesteira[3]; Bruna Dias[3]; Ana Lucas[3]; Ana Margarida Alexandre[3]; Catarina Ferreira[3]; Bruna Viegas[3]; Isabella Bracchi[1,4]; Juliana Guimarães[1]; Joana Amaro[5,6]; Teresa F Amaral[3,7]; Cláudia Camila Dia[8,9]; Andreia Oliveira[6,10]; Altin Ndrio[11]; João Tiago Guimarães[1,5,11]; João Costa Leite[12]; Rita Negrão[1]; Elisa Keating[1]

[1] RISE-Health, Department of Biomedicine – Unit of Biochemistry, Faculty of Medicine, University of Porto

[2] Faculty of Health Sciences, Fernando Pessoa University

[3] Faculty of Nutrition and Food Sciences, University of Porto

[4] Department of Functional Sciences, School of Health, Polytechnic Institute of Porto

[5] EPIUnit ITR, Institute of Public Health, University of Porto

[6] Department of Medicine, Faculty of Medicine, University of Porto

[7] INEGI – Institute of Science and Innovation in Mechanical and Industrial Engineering; LAETA – Associate Laboratory for Energy, Transports and Aerospace

[8] Knowledge Management Unit, Faculty of Medicine, University of Porto

[9] RISE-Health, Department of Community Medicine, Information and Health Decision Sciences (MEDCIDS), Faculty of Medicine, University of Porto

[10] Department of Public Health and Forensic Sciences and Medical Education, Faculty of Medicine, University of Porto

[11] Clinical Pathology, São João University Hospital Center

[12] Joint Research Centre, European Commission

INTRODUCTION: In Portugal, lack of information regarding vegetarian populations and difficult access to nutritional counselling may exacerbate the risks of poorly planned plant-based diets.

OBJECTIVES: To study body composition differences between vegetarian and omnivorous adults, and to identify putative underlying nutritional and health parameters.

METHODOLOGY: 425 omnivorous (OMNI), lacto-ovo-vegetarian (LOV) or vegan (VEG) adults living in Portugal free of any chronic disease were included. Participants answered a food frequency and a sociodemographic and lifestyle questionnaire. Bioelectric impedance analysis was performed, and fasting blood samples were collected for health biomarkers analysis.

RESULTS: Total protein intake was significantly lower for stricter vegetarian habits (median (P25; P75) in g/day: 98.6 (79.5; 123.1), 90.4 (65.9; 121.0), and 87.6 (59.8; 118.5) for OMNI, LOV and VEG, respectively; p = 0.020). Compared to being OMNI, being LOV, but not VEG, was independently associated with having +4.8 % (p = 0.002) fat mass and –2.2 % (p = 0.043) muscle mass (model adjusted for sex, age, marital status, physical exercise, multivitamin supplement intake and nutritional counselling). On the other hand, isolated B12 supplements were most used by VEG (93% in VEG *vs*. 17% in OMNI and 59% in LOV, p = 0.001), while isolated iron supplements were most used by LOV (29% in LOV *vs*. 14% in OMNI and 13% in VEG, p = 0.042). Among VEG, B12 blood levels correlated negatively with blood homocysteine (r_s = –0.386, p < 0.001) and positively with % muscle mass (r_s = 0.136, p = 0.005) and iron supplement users presented higher C-reactive protein (p = 0.014) and lower % muscle mass (p = 0.003), when compared to non-users.

CONCLUSIONS: Our data suggest that among VEG, B12 supplementation may rescue from low-protein-induced muscle mass loss, while among LOV, iron-related inflammation may exacerbate it.

FUNDING: Cátia Pinheiro was funded by FCT/MCTES (Fundação para a Ciência e a Tecnologia and Ministry of Science, Technology, and Higher Education) under CINTESIS by a PhD scholarship (reference UI/BD/151504/2021). This research was funded by national funds through FCT, Fundação para a Ciência e a Technology, I.P., within the scope of the project "RISE-LA/P/0053/2020 and CINTESIS, R&D Unit (reference UIDB/4255/2020)".

CO15. LATER DAILY EATING IS ASSOCIATED WITH POORER WEIGHT LOSS OUTCOMES IN PATIENTS LIVING WITH SEVERE OBESITY FOLLOWING BARIATRIC SURGERY

Joana Rodrigues[1,2]; Vânia Magalhães[3-5]; Maria Paula Santos[4,6]; Cátia Reis[7-9]; Fernando Pichel[5]; Paulo Soares[10]; Jorge Santos[4,10,11]; Sofia Vilela[3,4]

[1] Instituto de Saúde Pública da Universidade do Porto

[2] Faculdade de Medicina da Universidade do Porto

[3] EPIUnit - Instituto de Saúde Pública da Universidade do Porto

[4] Laboratório para a Investigação Integrativa e Translacional em Saúde Populacional

[5] Serviço de Nutrição, Unidade Local de Saúde de Santo António

[6] Centro de Investigação em Atividade Física, Saúde e Lazer, Faculdade de Desporto da Universidade do Porto

[7] CRC-W - Faculdade de Ciências Humanas, Universidade Católica Portuguesa

[8] Instituto de Saúde Ambiental, Faculdade de Medicina da Universidade de Lisboa

[9] Gulbenkian Institute of Molecular Medicine

[10] Serviço de Cirurgia Digestiva e Extradigestiva, Unidade Local de Saúde de Santo António

[11] Unidade Multidisciplinar de Investigação Biomédica, Instituto de Ciências Biomédicas Abel Salazar da Universidade do Porto

INTRODUCTION: Bariatric surgery (BS) is a highly effective treatment for severe obesity. However, post-surgical weight loss varies considerably, with a substantial proportion of patients experiencing suboptimal results. Although meal timing plays a role in weight regulation, research on its impact in BS patients remains limited.

OBJECTIVES: To assess the association between eating midpoint (EM) and weight loss outcomes 6-months after BS.

METHODOLOGY: Within the ChronoWise cohort, 96 adults who underwent BS at the Santo António Local Health Unit, Porto, were included. Participants were evaluated at 3- and 6-month post-surgery. Upon 3 months, meal timing was collected through the Chrononutrition Profile–Questionnaire and used to determine the EM (i.e. midpoint between first and last meal=[(Timing of last meal–Timing of first meal)/2)+Timing of first meal]), separately for workdays (WD) and free days (FD). Participants were categorized as early or late eaters based on the median EM for each period (14:44 for WD and 15:07 for FD). Chronotype was estimated using the midpoint of sleep on free days sleep corrected, through the Munich Chronotype Questionnaire. Weight loss at 6 months was calculated as the percentage of excess weight loss (%EWL=[100x(pre-surgery weight – weight at 6-months)/(pre-surgery weight–weight at body mass index (BMI)=25kg/m^2)]). Linear regression analyses were performed, and the following potential confounders were assessed: sex, age, pre-surgery weight, surgical technique and chronotype.

RESULTS: Participants (71.9% female) had a mean age of 46±10.2y and baseline BMI of 44±5.7kg/m^2. The most common surgical technique was Roux-en-Y gastric bypass (70.8%). After 6 months, BMI decreased by 12kg/m^2, corresponding to 67±15.9 %EWL. After adjustment, negative associations were found between late eaters on WD (β=–8.80;95%CI:–14.27,–3.33) and FD (β=–5.69;95%CI:–11.35,–0.23) and %EWL.

CONCLUSIONS: Later daily eating was associated with poorer weight loss outcomes following BS. Optimizing meal timing may benefit post-operative response.

FUNDING: FCT[UIDB/04750/2020;LA/P/0064/2020;10.54499/2021.01096.CEECIND; &SGITR2023/EPIUnit]

CO16. SARCOPENIC OBESITY IN PORTUGUESE ADULTS AND ASSOCIATED DEMOGRAPHIC AND HEALTH-RELATED CHARACTERISTICS

Fernanda Farias[1]; Milton Severo[1,2]; Joana Araújo[1,3]

[1] EPIUnit – ITR, Instituto de Saúde Pública da Universidade do Porto

[2] Departamento de Ensino Pré-Graduado, Instituto de Ciências Biomédicas Abel Salazar da Universidade do Porto

[3] Departamento de Ciências da Saúde Pública e Forenses, e Educação Médica, Faculdade de Medicina da Universidade do Porto

OBJECTIVES: To estimate prevalence of sarcopenic obesity (SO) in Portuguese adults, according to different criteria, and its associations with sociodemographic and health-related characteristics.

METHODOLOGY: We used data from 1838 participants from a population-based cohort in Portugal (EPIPorto), with valid anthropometric and body composition data at baseline or first follow-up. Fat mass (FM) and fat-free mass (FFM) were estimated by bioelectric impedance and then calibrated against DXA. Four criteria of SO were used: SO1) obesity as BMI ≥30.0Kg/m2 and sarcopenia as sex-specific mean of skeletal muscle mass index <1SD of the reference group (<40 years); SO2) same definition for sarcopenia and obesity as percentage FM proposed by Gallagher *et al.*; SO3 & SO4) sarcopenia defined as a lower FFM than would be expected for FM by sex and age (new definition), and obesity according to BMI/FM, respectively. Association between sex, age, education, sports, alcohol and tobacco consumption and SO were estimated through binary logistic regression models, fully adjusted (OR;95% CI).

RESULTS: The prevalence of SO increased with aging but was present even in younger participants. Prevalence was higher with SO3 criteria: 7.8% in women and 3.0% in men; 6.4% in 40-60y; 8.1% in >60y. Using the new definition with BMI (SO3), increasing education (OR=0.94; 95%CI; 0.89-0.99), practicing sports (OR=0.54;0.34-0.84) and being a male (OR=0.28; 0.15-0.49) were associated with lower odds of SO. Each additional year of age was associated with 3% higher odds of SO (OR=1.03; 1.01-1.05), and tobacco consumption also increased the odds of SO, but significant only for former smokers (OR=2.18; 1.25-3.76). No significant associations were found with alcohol consumption.

CONCLUSIONS: The new criterion developed to assess SO identified a higher prevalence compared with the other criteria. Direct associations with SO were found for age and tobacco, while the practice of sports, education and male sex were inversely associated.

CO17. THE CONNECTION PROJECT IN VALONGO: ENGAGING ADOLESCENTS THROUGH PARTICIPATORY ACTION RESEARCH TO FOSTER HEALTHIER SCHOOL ENVIRONMENTS

Beatriz Teixeira[1]; Catarina Carvalho[1]; Joana Rodrigues[1]; Beatriz C Oliveira[1]; Maria Paula Santos[1,2]; Elisabete Ramos[1,3]; Carla Lopes[1,3]

[1] ITR, Instituto de Saúde Pública da Universidade do Porto

[2] Faculdade de Desporto da Universidade do Porto

[3] Faculdade de Medicina da Universidade do Porto

INTRODUCTION: Participatory Action Research (PAR) is a powerful tool for improving diet and physical activity (PA) among adolescents by actively involving them in identifying challenges, developing solutions, and implementing interventions that fit their needs and lived experiences. CONNECTION project is dedicated to the co-creation of interventions that foster healthier diets and increase PA among youth, ultimately to reduce health inequalities.

OBJECTIVES: This study aimed to explore the main issues identified by 12–13-year-old adolescents from a school in Valongo regarding diet and PA, and to define strategies for addressing these challenges in collaboration with adult stakeholders.

METHODOLOGY: A PAR approach was employed, involving two classes from a public school in Valongo: one focused on diet (n=23 students) and another on PA (n=24 students). This approach included six sessions, during which mapping, photovoice, and storyboard methodologies were applied to capture students' perspectives and experiences. Additionally, interviews with key stakeholders (teachers, school staff, and municipal representatives) provided complementary insights into these challenges. A joint session with adolescents and adult stakeholders will be conducted to integrate and align perspectives.

RESULTS: Regarding diet, food waste, especially uneaten fish and discarded bread, was a major concern. Unhealthy snack consumption and limited access to free fruit and potable water were also highlighted, particularly by adult stakeholders. Proposed solutions include ensuring free fruit, water availability and education programs involving parents (food waste; healthy snacks). For PA, students emphasised the need for better infrastructure, structured games, and diverse sports programs. Suggested strategies include a sports equipment loan system, playground volleyball nets, and more indoor sports areas.

CONCLUSIONS: By integrating participatory methodologies, this project facilitates dialogue between students and stakeholders, assisting in the design of meaningful and sustainable changes in the school environment. The final strategies, yet to be defined, will be implemented in the 2025/2026 academic year.

CO18. A INGESTÃO DE BEBIDAS AÇUCARADAS E A SUA ASSOCIAÇÃO COM A LITERACIA EM SAÚDE DE FAMÍLIAS COM CRIANÇAS EM IDADE ESCOLAR: PROJETO BEE-SCHOOL

Joana Azevedo Nunes[1]; Raquel Viseu[1]; Juliana Martins[2-4]; Ana Duarte[2-5]; Patrícia Padrão[1,6,7]; Rafaela Rosário[2-5]

[1] Faculdade de Ciências da Nutrição e Alimentação da Universidade do Porto

[2] Escola Superior de Enfermagem da Universidade do Minho

[3] CIEnf: Centro de Investigação em Enfermagem da Universidade do Minho

[4] UICISA: E: Unidade de Investigação em Ciências da Saúde: Enfermagem da Escola Superior de Enfermagem de Coimbra

[5] CIEC: Centro de Investigação em Estudos da Criança, Instituto da Educação da Universidade do Minho

[6] EPIUnit—Instituto de Saúde Pública, Universidade do Porto

[7] Laboratório para a Investigação Integrativa e Translacional em Saúde Populacional

INTRODUÇÃO: O consumo de bebidas açucaradas tem aumentado, tornando-se uma preocupação de saúde pública. Sabe-se que a literacia em saúde (LS) é essencial na adoção de escolhas alimentares conscientes e saudáveis. Compreender esta relação pode contribuir para o desenvolvimento de estratégias de educação e promoção da saúde da criança.

OBJETIVOS: Avaliar a associação entre a ingestão de bebidas açucaradas e a LS de pais e de crianças em idade escolar.

METODOLOGIA: Este estudo transversal foi realizado no âmbito do projeto BeE-school, implementado em escolas do 1.º ciclo do ensino básico propensas à vulnerabilidade. A ingestão de bebidas açucaradas foi avaliada através do "Recordatório às 24h anteriores" reportado pelas crianças. Foi utilizado um manual fotográfico de quantificação alimentar para identificar os tamanhos das porções. A LS das crianças foi avaliada através do questionário HLS-EU-PTc validado para a população portuguesa e adaptado a crianças e adolescentes. A LS digital dos pais foi avaliada através da aplicação do questionário HLS19-digital na versão portuguesa. Foram realizados testes-t para avaliar as diferenças na média de LS (dos pais e crianças) entre as crianças que consumiram no dia, menos de 200 g e mais de 200 g de bebidas açucaradas.

RESULTADOS: A amostra englobou 454 crianças (50,2% rapazes), com média de idades de 7,7(±1,2) anos. Destas, 229 crianças reportaram o consumo de bebidas açucaradas, sendo que, cerca de 52,8% consumiram acima de 200g/dia. Não se verificaram diferenças significativas na LS digital dos pais em relação ao consumo de bebidas açucaradas: t(354)=-0,254, p=0,800. Do mesmo modo, não se verificaram diferenças significativas entre a LS das crianças e o consumo de bebidas açucaradas: t(437)=1,142, p=0,150.

CONCLUSÕES: Os resultados deste estudo não fornecem evidências que confirmem uma associação significativa entre a literacia em saúde e a ingestão de bebidas açucaradas pelas crianças.

CO19. FOOD ENVIRONMENT IN THE PERI-SCHOOL CONTEXT OF THE PORTUGUESE CITY OF VISEU

Rosário Pinheiro[1]; Caio Safi[2]; Ana Júlia Orosco[1]; Ricardo Almedra[2]; Margarida Liz Martins[1,3-5]

[1] Polytechnic University of Coimbra

[2] CEGOT, Center for Geography and Spatial Planning Studies, Department of Geography and Tourism, University of Coimbra, University of Coimbra

[3] H&TRC - Health & Technology Research Center, Coimbra Health School, Polytechnic University of Coimbra

[4] Sports and Physical Activity Research Center, University of Coimbra

[5] Research Centre for Anthropology and Health, University of Coimbra

INTRODUCTION: The Food-Epi study (2022) highlights insufficient public intervention in regulating food availability through spatial planning. Characterizing the food offered near schools is crucial, as it strongly influences young people's choices.

OBJECTIVES: This study aims to evaluate food availability near public schools in Viseu.

METHODOLOGY: The Nutrition Environment Measures Study in Restaurants, and Nutrition Environment Measures Study in Stores were used for data collection, after adaptation to the type of food available in restaurants and commercial stores in Portugal. Commercial establishments near the 12 public preparatory and secondary public schools of Viseu, within a 5-minute walk were assessed. 89 establishments were evaluated, 20 stores and 69 restaurants.

RESULTS: It was observed that only 2.9% of restaurants presented healthy options (with vegetables and healthy cooking methods) and 60% of restaurants had no healthy options at all. 72.5% of restaurants didn't offer fruit. The average price of healthy dishes (€7.48) is higher than other dishes (€5.82), while their availability is lower. There were few dishes with legumes, and they were pricier (€9.28) compared with other meals (5.82€). Soup, despite having a significantly lower average cost (1.77€) is less present compared to savory snacks (€2.7). Only 20% of stores promote healthy choices, 55% offer more than 10 options of chocolates and 75% more than 10 types of soft drinks. The average price of plain milk (€1.06) is higher than that of chocolate milk (€0.68). Similarly, plain cakes (€2.60) are more expensive than puff (€1.61), fried (€2.12), and stuffed cakes (€1.50). Soft drinks (€1.42) are priced lower than natural juices (€2.85) and smoothies (€2.61) but remain costlier than plain water (€0.84).

CONCLUSIONS: Healthy food and drinks are less available than unhealthy options in both restaurants and stores around schools. Additionally, the average price of healthy meals is higher than the overall average meal price.

CO20. HÁBITOS ALIMENTARES E LITERACIA EM ALIMENTAÇÃO E NUTRIÇÃO DE ADOLESCENTES NO ENSINO PÚBLICO DO MUNICÍPIO DE TOMAR

Mariana Briote[1]; Cláudia Afonso[2,3]; Sara Rodrigues[2,3]

[1] Unidade de Recursos Assistenciais Partilhados, Cuidados de Saúde Primários da Unidade Local de Saúde do Médio Tejo E.P.E.

[2] Faculdade de Ciências da Nutrição e Alimentação da Universidade do Porto

[3] EPIUnit ITR, Instituto de Saúde Pública da Universidade do Porto

INTRODUÇÃO: A adolescência é uma fase crítica para a formação de hábitos alimentares, sendo essencial avaliar a literacia alimentar e nutricional (LAN) e a adesão ao padrão alimentar mediterrânico (PAM), reconhecido como saudável e sustentável, destacando-se o papel da escola como um local estratégico para a promoção destes conceitos.

OBJETIVOS: Caracterizar os hábitos alimentares e o nível de LAN dos adolescentes que frequentam escolas públicas do município de Tomar e estudar os fatores associados à sua adesão ao PAM.

METODOLOGIA: Estudo observacional descritivo transversal com 1.094 alunos (9-20 anos). Os dados foram recolhidos através de questionário de autopreenchimento no segundo semestre de 2023/24, incluíram informações sociodemográficas, antropométricas, de estilos de vida, hábitos alimentares (versão portuguesa do índice KIDMED) e LAN (versão portuguesa da escala FLINT). A análise estatística envolveu medidas de correlação e também regressão logística para a identificação dos fatores associados a melhor adesão ao PAM.

RESULTADOS: A amostra caracterizou-se por uma predominância feminina (53,6%), com média de idade de 14,06 anos, sendo a maioria dos participantes de nacionalidade portuguesa (89,1%). Os adolescentes apresentaram baixa (19,1%) a moderada (60,6%) LAN e baixa (10,2%) a moderada (47,0%) adesão ao PAM. Verificou-se que 18,2% apresentavam excesso de peso. As pontuações do KIDMED mostraram correlação positiva moderada (r=0,483; p<0,001) com as da escala de LAN, sugerindo que melhor literacia tende a estar associada a comportamentos alimentares mais saudáveis. Também se mostrou que são

as horas de ecrã, a autoperceção sobre a própria alimentação e a LAN que explicam 30,3% da adesão ao PAM (Nagelkerke R^2 = 0,303).

CONCLUSÕES: Destacam-se a necessidade de intervenções holísticas em contexto escolar, que combinem LAN com promoção da atividade física e redução das horas de ecrã. Tais estratégias são essenciais para melhorar a adesão ao PAM entre adolescentes e, consequentemente, promover a sua saúde e bem-estar geral.

CO21. REDUÇÃO DO SAL NA SOPA DE REFEIÇÕES ESCOLARES DE ESCOLAS DO 1.º CICLO DO ENSINO BÁSICO DO MUNICÍPIO DE LOULÉ E AVALIAÇÃO DO IMPACTO DO DESPERDÍCIO ALIMENTAR

Sofia Sousa Silva[1-3]; Lisa Cartaxo[1]; Sofia Alves[1]; Teresa Sofia Sancho[4,5]; Margarida Liz Martins[6-9]

[1] Unidade Local de Saúde do Algarve

[2] Faculdade de Ciências da Nutrição e Alimentação da Universidade do Porto

[3] GreenUPorto/Inov4Agro

[4] Direção-Geral da Saúde

[5] Escola Superior de Saúde da Universidade do Algarve

[6] Escola Superior de Tecnologia da Saúde de Coimbra, Instituto Politécnico de Coimbra

[7] Health & Technology Research Center

[8] Centro de Investigação do Desporto e Actividade Física da Universidade de Coimbra

[9] Centro de Investigação em Antropologia e Saúde

INTRODUÇÃO: A hipertensão arterial (HTA) é uma das principais causas de mortalidade e incapacidade a nível global, com a sua prevalência em adultos estimada em 42,6%, e em crianças entre 2,2% e 13%. O consumo excessivo de sal é um dos principais fatores de risco para HTA. O desperdício alimentar nas escolas é também uma preocupação, com implicações económicas e ambientais.

OBJETIVOS: Analisar a quantidade de sal nas sopas servidas no almoço de três escolas do 1.º Ciclo do Ensino Básico e compreender a sua relação com o desperdício alimentar (DA) após intervenção na redução do sal adicionado.

METODOLOGIA: O estudo realizou-se em três fases: Fase I (caracterização), Fase II (intervenção) e Fase III (pós-intervenção). A medição de sal na sopa foi realizada durante 30 dias, 10 dias em cada escola, utilizando o equipamento LAQUAtwin salt-22 nas fases I e III. Quantificou-se também o desperdício alimentar (total, sob forma de restos e sobras) pelo método de pesagem. Foram avaliadas 9891 refeições fornecidas a 500 crianças com idades entre os 6 e os 10 anos. Na fase II, procedeu-se à redução do sal adicionado na sopa, acompanhada de ações de sensibilização, formação e educação alimentar. Na fase III foi feita a reavaliação.

RESULTADOS: Observou-se uma redução média significativa de sal na sopa de 0,31g/dose, cerca de 29,3% por dose servida, embora ainda superior às recomendações ($p<0,05$). Após a intervenção, a sopa contribui com cerca de 29,2% do sal para a dose máxima diária. O valor do DA diminuiu, não se verificando correlação (R-0,018) significativa (p=0,96) entre a redução da quantidade de sal na sopa e o desperdício na forma de restos.

CONCLUSÕES: Este estudo enfatiza a necessidade de intervir na redução da adição de sal na sopa das refeições escolares, sem prejuízo do DA, bem como minimizar o desperdício de recursos.

CO22. HYGIENE CHALLENGES IN FOODSERVICE UNITS: BIOCIDE EFFICACY AND BACTERIAL DIVERSITY ACROSS SURFACES

Andreia Peixoto[1-3]; Susana Santos[1]; João Rodrigues[1]; Margarida Saraiva[1]; Cristina Belo Correia[1]; Rita Batista[1]; Carla Novais[3]; Patrícia Antunes[2,3]

[1] National Institute of Health Doutor Ricardo Jorge

[2] Faculty of Nutrition and Food Sciences, University of Porto

[3] UCIBIO/i4HB/ Laboratory of Microbiology, Faculty of Pharmacy, University of Porto

INTRODUCTION: Bacterial hazards on contaminated surfaces in food-processing environments pose significant food safety risks. Monitoring hygiene on surfaces in direct or indirect contact with food is a priority for food businesses. Sanitation relies on biocides (disinfectants/antiseptics), whose effectiveness depends on microbial susceptibility, concentration and contact-time.

OBJECTIVES: To assess the occurrence and diversity of hygiene indicator bacteria on kitchen surfaces in Portuguese foodservice facilities (FSF) and their association with biocide use.

METHODOLOGY: Swab samples from hands (H=546) and surfaces (crockery/cutlery/chopping boards/worktops) (S=582) were collected from 107 FSFs (companies, nurseries/schools/universities, hospitals; 1-16 visits/each; June2023–September2024). Microorganisms at 30°C (AC), *Enterobacteriaceae*, *E. coli*, and *Enterococcus* were analysed using validated methods, with species identified by MALDI-TOF-MS. Biocide use was recorded in 51 FSF, and Quaternary Ammonium Compounds-QAC and chlorine concentrations in ready-to-use products were assessed by rapid semi-quantitative-tests.

RESULTS: Most samples (54%=608/1128; H-68%-374/546, S-40%-234/582) met unsatisfactory hygiene guidelines (INSA-guidelines). Unsatisfactory results occurred mostly in AC (H-62%, S-37%; 100 FSF) and/or *Enterobacteriaceae* count (H-36%, S-25%; 107 FSF) rather than *E. coli* (H-1%, S-6%; 27 FSF) or *Enterococcus* (H-5%, S-7%; 14 FSF). A total of 40 species (H-34/S-32) were identified, mostly *Enterobacter cloacae* (H-21%, S-32%; FSF=51), *Klebsiella pneumoniae* (H-12%, S-28%; FSF=40), *K.oxytoca* (H-15%, S-14%; FSF=37), and *E.coli* (H-2%, S-14%; FSF=15). The most used antiseptics contained QAC+alcohol (45%) or alcohol alone (29%), while disinfectants QAC (37%), QAC+alcohol (14%), or chlorine (8%). The occurrence of unsatisfactory samples in AC or *Enterobacteriaceae* varied with the type of biocide, indicating greater effectiveness of QAC-based products for H and S ($P<0,05$; Fisher-exact-test). All QAC- and chlorine-based products were within the recommended concentrations.

CONCLUSIONS: Despite biocide use, some food-contact surfaces showed unsatisfactory hygiene indicators and diverse bacteria. Recurring species suggests possible persistence, reintroduction, or cross-contamination. Investigating biocide susceptibility and bacterial persistence is essential to improve hygiene practices and identify more reliable bioindicators.

CO23. RISK-BENEFIT ASSESSMENT OF DIFFERENT SCENARIOS OF BREAD FORTIFICATION AND SUPPLEMENTATION WITH FOLIC ACID IN PORTUGAL

Beatriz Carvalho Oliveira[1]; Telmo Pina Nunes[1]; Sara Monteiro Pires[2]

[1] CIISA-Centre for Interdisciplinary Research in Animal Health, Faculty of Veterinary Medicine, University of Lisbon

[2] National Food Institute, Technical University of Denmark

INTRODUCTION: The Portuguese population exhibits a high prevalence of inadequate levels of folate intake, underscoring the imperative for the implementation of strategies aimed at increasing the intake of this micronutrient.

OBJECTIVES: This study aimed to assess the impact of possible scenarios of fortification of bread with folic acid and supplementation on the health of the Portuguese population.

METHODOLOGY: We applied a risk-benefit approach to assess the potential risks associated with increased exposure to folate/folic acid and the potential benefits associated with a reduction in the incidence of neural tube defects in newborns

and in the likelihood of developing megaloblastic anemia. Based on intake data from the National Food and Physical Activity Survey (2015-2016), we created scenarios with different levels of fortification and use of dietary supplements. We applied a probabilistic stochastic model to calculate the incidence of each health effect, using Monte Carlo simulations to quantify uncertainties. The overall health impact of each scenario was quantified in disability-adjusted life years (DALYs) and compared with the reference scenario.

RESULTS: The results showed that all scenarios where the only change was the inclusion of bread fortification increased the burden of disease associated with neurological damage. The most beneficial scenario entailed the supplementation of 400 µg/day to women of childbearing age, without fortification, which resulted in a reduction of 1.285 DALYs in comparison to the reference scenario (Table 1).

CONCLUSIONS: Considering the characteristics of the Portuguese population, we concluded that supplementation aimed at women of childbearing age should be favored over mandatory fortification of bread with folic acid.

TABLE 1

Overall health impact of each habitual folate equivalent intake scenario, DALYs

SCENARIOS	OVERALL HEALTH IMPACT	
	DALYs[a] (95% CI[b])	EXCESS[c] DALYs (95% CI)
REF	4704.13 (4458.04; 4961.39)	-
A	4826.33 (4599.16; 5064.12)	118.29 (-226.53; 469.62)
B	5180.86 (4949.47; 5425.91)	476.16 (126.76; 824.14)
C	6109.69 (5863.15; 6363.61)	1405.44 (1052.41; 1752.10)
D	7593.61 (7337.41; 7850.93)	2888.06 (2522.62; 3239.44)
REF1	3786.68 (3785.91; 3787.46)	-917.42 (-1174.59; -671.30)
A1	3947.64 (3946.97; 3948.31)	-756.41 (-1013.70; -510.48)
B1	4245.13 (4244.30; 4245.97)	-459.25 (-716.29; -213.05)
C1	5031.30 (5028.41; 5034.20)	327.48 (69.73; 573.09)
D1	6409.71 (6400.09; 6419.40)	1706.49 (1448.51; 1952.78)
E	3418.88 (3173.73; 3676.51)	-1284.88 (-1288.62; -1281.42)
AE	3883.71 (3655.49; 4120.93)	-824.39 (-1170.07; -472.56)
BE	4418.02 (4186.33; 4662.52)	-286.56 (-637.14; 61.85)
CE	5566.15 (5319.27; 5820.18)	862.47 (509.01; 1208.62)
DE	7178.82 (6922.09; 7436.98)	2473.04 (2108.50; 2824.46)

[a] Disability-adjusted life years
[b] Credible interval
[c] Difference relative to reference scenario

REF: Simple food (IAN-AF data) + dietary supplements (IAN-AF data)
A: Simple food (IAN-AF data) + fortified bread (70 µg folic acid/ 100 g) + dietary supplements (IAN-AF data)
B: Simple food (IAN-AF data) + fortified bread (140 µg folic acid/ 100 g) + dietary supplements (IAN-AF data)
C: simple food (IAN-AF data) + fortified bread (280 µg folic acid/ 100 g) + dietary supplements (IAN-AF data)
D: Simple food (IAN-AF data) + fortified bread (420 µg folic acid/ 100 g) + dietary supplements (IAN-AF data)
REF1: simple food (IAN-AF data)
A1 - D1: Simple food (IAN-AF data) + fortified bread (levels A-D)
E: simple food (IAN-AF data) + dietary supplements (general population data from the IAN-AF data and 100% adherence to recommendations for women of childbearing age)
AE-DE: Simple food (IAN-AF data) + fortified bread (levels A-D) + dietary supplements (general population data from the IAN-AF data and 100% adherence to recommendations for women of childbearing age)

CO24. PERCEÇÃO DAS AMAS ACERCA DA OFERTA ALIMENTAR E SEGURANÇA DA ALIMENTAÇÃO OFERECIDA A CRIANÇAS IMIGRANTES AO SEU CUIDADO

Ana Araújo[1]; Elisabete Pinto[2]; Cláudia Afonso[3]

[1] Associação de Paralisia Cerebral de Guimarães

[2] Escola Superior de Biotecnologia da Universidade Católica Portuguesa

[3] Faculdade de Ciências da Nutrição e Alimentação da Universidade do Porto

INTRODUÇÃO: Ama, profissão destinada à prestação de cuidados a crianças entre os 3-4 meses e os 3 anos de idade. Em 2021 Portugal contava cerca de 600, distribuídas por distritos de maior densidade populacional, zonas onde, simultaneamente se alojam, em número crescente, indivíduos de outras nacionalidades. O risco de pobreza a que este grupo populacional se acomete, poderá comprometer a qualidade e segurança da sua alimentação. Foi objetivo deste trabalho explorar perceções, crenças e práticas das Amas em Creche Familiar relativas às refeições provenientes de famílias imigrantes, nomeadamente caracterizar a oferta alimentar diária, a sua segurança e adequação às necessidades deste grupo etário.

METODOLOGIA: Foi utilizada metodologia qualitativa, para a recolha de dados, com recurso a entrevista semiestruturada, a partir de uma amostra de conveniência constituída por seis Amas.

RESULTADOS: As entrevistadas identificam a situação económica das famílias como um dos fatores que condiciona a aquisição e escolha de alimentos, referem dificuldade na perceção de rotinas alimentares e demonstram preocupação com o desequilíbrio nutricional e prejuízos no desenvolvimento das crianças que daí possam advir. Reportam o recurso a produtos embalados de baixo valor nutricional para compor as lancheiras das crianças. Destacam alguma monotonia alimentar das refeições que são trazidas pela família e o desconhecimento da "nossa sopa" condicionando a variedade e o equilíbrio alimentar.

CONCLUSÕES: Foi percetível o respeito pela cultura e tradições individuais, contudo o aspeto, os aromas desconhecidos e o facto de não identificarem os alimentos que não são portugueses condiciona a sua capacidade de perceber a segurança das refeições que servem. Mostra-se pertinente a promoção de espaços de partilha entre culturas de forma que a aculturação seja bidirecional, tornando mais segura e equilibrada a oferta alimentar.

CO25. ASSOCIATION BETWEEN FOOD INSECURITY AND APPETITIVE TRAITS: A PROSPECTIVE STUDY

Alexandra Costa[1]; Marion M Hetherington[2]; Andreia Oliveira[1,3]

[1] EPIUnit ITR, Institute of Public Health of the University Porto

[2] School of Psychology, University of Leeds

[3] Department of Public Health and Forensic Sciences and Medical Education, Faculty of Medicine, University of Porto

INTRODUCTION: Food insecurity during childhood is associated with a range of adverse outcomes later in life, including overeating, eating disorders, and obesity. However, the mechanisms linking early food insecurity to subsequent eating problems remain poorly understood.

OBJECTIVES: To evaluate the association between food insecurity at age 10 and appetitive traits at age 13.

METHODOLOGY: This study included 2495 participants from the Generation XXI population-based birth cohort. Household food security status at age 10 was assessed by the US Household Food Security Survey Module, filled by the primary caregiver. Additionally, children's perceptions of food security at the same age were evaluated using the Self-Administered Food Security Survey Module. Appetitive traits at age 13 were measured with the Children's Eating Behaviour Questionnaire (CEBQ). Associations were estimated using linear regression models, adjusted for sociodemographic variables.

RESULTS: At age 10, 5.8% of children lived in food-insecure households. These children showed significantly higher scores on food approach traits at age 13 compared to those from food-secure households, namely food responsiveness ($\hat{\beta}$ =0.27, 95%CI 0.13,0.42), enjoyment of food ($\hat{\beta}$ =0.22, 95%CI 0.08,0.35), desire to drink ($\hat{\beta}$ =0.26, 95%CI 0.14,0.37), and emotional overeating ($\hat{\beta}$ =0.28, 95%CI 0.15, 0.41). Household food insecurity was also associated with increased emotional undereating ($\hat{\beta}$=0.15, 95%CI 0.01,0.28). Analysis using child-reported

food security status mirrored these results, except for emotional undereating, for which no significant association was observed.

CONCLUSIONS: Experiencing food insecurity in childhood was associated with high food approach traits at age 13, which collectively reflect an avid appetite and strong interest in food. These findings highlight the potential lasting implications of early-life food insecurity on eating behaviours.

CO26. THE ROLE OF COOKING SKILLS IN PROMOTING MEDITERRANEAN DIETARY PATTERN ADHERENCE IN CHILDREN AND YOUNG ADOLESCENTS

Inês M da Costa[1]; Cláudia Viegas[1,2]; Rute Borrego[1,2]; Vânia Costa[1,2]

[1] Lisbon School of Health Technology, Polytechnic University of Lisbon

[2] H&TRC—Health & Technology Research Center, ESTeSL — Lisbon School of Health Technology, Polytechnic University of Lisbon

INTRODUCTION: Early involvement in food preparation during childhood and adolescence is associated with enhanced cooking skills (CSk), increased cooking frequency, greater enjoyment of cooking, and reduced food waste in adulthood. Additionally, it is linked to improved dietary quality, including higher fruit and vegetable intake, lower fast-food consumption, and more consistent meal patterns.

OBJECTIVES: Assess the correlation between adherence to the Mediterranean Diet Pattern (MDP) and CSk in children and adolescents.

METHODOLOGY: A cross-sectional study was conducted between March and December 2024 as part of the Tool4MEDLife project, involving children and adolescents from public schools in Lisbon. MDP adherence was assessed using the KIDMED 2.0 index, while perceived CSk were evaluated using the CooC11 questionnaire. The Portuguese version of KIDMED 2.0 and COO11 were validated in the present sample. Data analysis was performed using RStudio® software (version 4.4.2) with a significance level of $\alpha = 0.05$. Descriptive statistics and statistical inference tests (Shapiro-Wilk, Spearman, Wilcoxon, Kruskal-Wallis) were applied.

RESULTS: The study included 395 children and adolescents (mean age: 10.2 ± 1.88 years; 51.4% female). The average KIDMED score was 6.37 ± 2.57, indicating moderate adherence to the MDP. The mean CSk score was 20.47 ± 11.63, also reflecting a moderate level of CSk, with older participants and females exhibiting significantly higher CSk levels ($p < 0.01$). A significant but weak correlation was found between the KIDMED and CSk scores ($p < 0.01$, $r = 0.255$).

CONCLUSIONS: The present study highlights the role of CSk in adherence to the MDP, suggesting that children who develop CSk tend to have healthier eating habits. However, the weak correlation between these two measures indicates that MDP adherence and dietary habits are influenced by factors beyond individual CSk, suggesting the need to consider additional determinants.

FUNDING: Funded through the Project "Tool4MEDLife - From tradition to innovation: new foods and educational toolkits for a healthy and sustainable Mediterranean lifestyle" within the scope of Transnational Cooperation – Partnership for Research and Innovation in the Mediterranean Area (PRIMA) supported by the HORIZON 2020.

Program and Foundation for Science and Technology through national funds through FCT – Foundation for Science and Technology, I.P., PRIMA/0013/2022FCT.

CO27. FOSTERING SMART NUTRITION: IMPACTO NA INSEGURANÇA ALIMENTAR, INDICADORES DE SAÚDE FÍSICA E HÁBITOS ALIMENTARES DE CRIANÇAS E FAMÍLIAS SOCIALMENTE VULNERÁVEIS

Ana Costa e Silva[1]; Inês Baía Dias[1]; Mariana Amorim[2]; Sílvia Fraga[2]; Elisabete Ramos[2]; Marlene Sousa[1]

[1] ProChild CoLAB Against Child Poverty and Social Exclusion

[2] EPIUnit ITR, Instituto de Saúde Pública da Universidade do Porto

INTRODUÇÃO: A crescente prevalência de insegurança alimentar (IA) e o seu impacto na saúde física e mental das crianças e cuidadores evidenciam a necessidade de se desenvolver e implementar intervenções comunitárias, especialmente em contextos de maior vulnerabilidade social. O projeto *Fostering Smart Nutrition* visou promover o acesso a alimentação saudável e sustentável e mitigar os efeitos da IA em crianças e famílias socialmente vulneráveis, através de um modelo de intervenção coconstruído e centrado nas suas necessidades.

OBJETIVOS: Avaliar o impacto do modelo de intervenção nos hábitos alimentares, nos indicadores de saúde física das crianças e na frequência de IA nas famílias.

METODOLOGIA: Participaram 38 crianças (52,6% do género feminino) com média de idades de 10,3 anos (DP=2,13) e respetivas famílias. A recolha de dados pré e pós-intervenção incluiu: (i) preenchimento, por parte dos cuidadores, do Questionário Sociodemográfico e da Escala de Insegurança Alimentar; (ii) avaliação física das crianças: peso, estatura e Índice de Massa Corporal (IMC). O modelo de intervenção consistiu na dinamização de 6 *workshops* de literacia alimentar para crianças e famílias, com o apoio da *app Super Nutri*, desenvolvida no âmbito do projeto.

RESULTADOS: Não se verificaram diferenças significativas no consumo de hortofrutícolas, mas observou-se uma redução significativa no consumo diário de chocolates (28,9% *vs*. 7,9%). Não se atestaram mudanças significativas no IMC das crianças. Houve, contudo, uma diminuição significativa da IA, com o número de famílias com IA a diminuir de 60,7% para 25%.

CONCLUSÕES: O modelo de intervenção mostrou-se eficaz na melhoria de alguns hábitos alimentares e na redução da IA nas famílias. Os resultados sugerem que a educação alimentar, apoiada por ferramentas digitais, pode atenuar os efeitos da IA e promover hábitos alimentares saudáveis em populações vulneráveis. Contudo, são necessários mais estudos para generalizar os resultados e avaliar os efeitos destas intervenções a longo-prazo.

CO28. CHRONONUTRITION PATTERNS FROM AGES 4 TO 13 AND ASSOCIATION WITH ADIPOSITY AT 13

Sofia Cardoso[1,2]; Milton Severo[1,2]; Camille Lassale[3-5]; Sofia Vilela[1,2]

[1] EPIUnit – ITR Instituto de Saúde Pública da Universidade do Porto

[2] Faculdade de Medicina da Universidade do Porto

[3] Barcelona Institute for Global Health (ISGlobal)

[4] Universitat Pompeu Fabra (UPF)

[5] CIBER Physiopathology of Obesity and Nutrition (CIBEROBN)

INTRODUCTION: Later chrono-nutrition patterns, marked by later eating occasions and/or higher energy intake later in the day, have been associated with adiposity in adults. Prospective studies in paediatric age are lacking.

OBJECTIVES: To derive chrono-nutrition patterns amongst 4-to-13-year-olds (y) from Generation XXI birth cohort, and assess their association with sex- and age-specific Body Mass Index z-scores (zBMI) at 13y.

METHODOLOGY: We derived chrono-nutrition patterns by: (a) estimating the daily average times and EI across EO with Fourier analysis, using data from ≥ 1 day of food diaries on ≥ 1 follow-ups (at 4, 7, 10 and/or 13 y); (b) applying a probabilistic cluster analysis (n=4969). We calculated zBMI at 13y using objective measurements (n=3784). The association of the participants' probability of belonging to each cluster with zBMI at 13y was assessed using linear regression models: crude model and adjusted for zBMI at 4y, maternal education, total daily energy intake and fruit and vegetables' intake at 13y .

RESULTS: There were sex differences in daily energy intake and time of eating

TABLE 1

Association between the Probability of belonging to Cluster 2 (4-13 years) and Body Mass Index z-scores at 13 years (n=3784)

	GIRLS (N=1847)		BOYS (N=1937)		ALL (N=3784)	
PC2	n	β̂ (95%CI)	n	β̂ (95%CI)	n	β̂ (95%CI)
M1	1847	0.032 (-0.139, 0.202)	1937	-0.147 (-0.344, 0.050)	3784	-0.042 (-0.171, 0.087)
M2	1654	-0.121 (-0.259, 0.018)	1744	-0.213 (-0.379, -0.047)	3398	-0.160 (-0.267, -0.052)
M3	1649	-0.109 (-0.247, 0.030)	1731	-0.210 (-0.377, -0.044)	3380	-0.155 (-0.263, -0.047)
M4	1202	-0.129 (-0.282, 0.023)	1180	-0.169 (-0.36, 0.022)	2382	-0.145 (-0.266, -0.025)
M5	1202	-0.108 (-0.262, 0.045)	1180	-0.136 (-0.328, 0.055)	2382	-0.119 (-0.240, 0.002)

β̂: Unstandardized coefficients
CI: Confidence Intervals
M: Model
n: Count
PC2: Probability of belonging to Cluster 2
y: Years
zBMI: Body mass index z-score
M1: PC2
M2: M1 + zBMI at 4y
M3: M2 + maternal education at baseline (years)
M4: M3 + Total daily energy intake at 13y (kJ/d)
M5: M4 + Fruit and vegetables' intake at 13y (g/d)

occasions. Two clusters emerged and cluster 2 had a lower total energy intake, energy intake at first and last eating occasions, a later last eating occasion, and a higher fruit and vegetables' intake compared to cluster 1, which had inverse characteristics. In the fully adjusted model, the probability of belonging to cluster 2 was negatively associated with zBMI at 13y in girls (n=1202, $\hat{\beta}$=-0.108; 95% CI:-0.262, 0.045) and boys (n=1180, $\hat{\beta}$=-0.136; 95%CI: -0.328, 0.055), although associations were not statistically significant (Table 1).

CONCLUSIONS: Having a chrono-nutrition pattern across 4-13y marked simultaneously by a later last meal but a lower overall energy intake was only weakly associated with adiposity at 13y after adjustment. Energy intake, diet quality, childhood zBMI, and unmeasured factors may be more important predictors of adolescents' adiposity.

CO29. PROGRAMA ALIMENTA-TE: UMA ESTRATÉGIA DE EDUCAÇÃO ALIMENTAR PARA POPULAÇÕES EM SITUAÇÃO DE VULNERABILIDADE NO ALGARVE

Diego Linares[1]; Leonor Vieira[1]; Nuno Alves[1]; Maria Palma Mateus[2,3]

[1] Banco Alimentar Contra a Fome do Algarve, Serviço de Qualidade e Nutrição

[2] Escola Superior de Saúde da Universidade do Algarve

[3] Algarve Biomedical Center Research Institute—ABC-RI

INTRODUÇÃO: A insegurança alimentar é um problema crescente na região do Algarve, afetando milhares de famílias em situação de vulnerabilidade. O Programa Alimenta-te distingue-se pelo seu alcance abrangente e abordagem prática, promovendo a autonomia alimentar e a adoção de hábitos saudáveis entre os beneficiários das instituições apoiadas pelo Banco Alimentar Contra a Fome do Algarve (BACFAlg). Adicionalmente, permitirá recolher dados essenciais sobre a realidade alimentar destas populações, contribuindo para a adaptação das estratégias de apoio alimentar e o desenvolvimento de políticas mais eficazes no combate à insegurança alimentar.

OBJETIVOS: Promover a literacia alimentar e incentivar práticas alimentares mais saudáveis e sustentáveis entre os utentes de instituições mediadoras do BACFAlg, com ênfase na Dieta Mediterrânica, rotulagem alimentar e aproveitamento integral dos alimentos.

METODOLOGIA: O programa teve início com duas sessões piloto realizadas em 2023, em escolas do Algarve, com a participação de 15 famílias beneficiárias. Com base nesta experiência, a metodologia foi aprimorada para incluir sessões teórico-práticas adaptadas às necessidades da população-alvo. Estas sessões são conduzidas por especialistas em nutrição, engenharia alimentar e chefes de cozinha voluntários, combinando momentos de aprendizagem teórica com demonstrações práticas, promovendo mudanças aplicáveis no dia-a-dia.

RESULTADOS: Os dados das sessões piloto indicam uma receção positiva e envolvimento ativo dos participantes. O programa prevê abranger 20% dos beneficiários de 40 instituições apoiadas pelo BACFAlg, impactando 1325 famílias, o que representa mais de 5000 pessoas no Algarve.

CONCLUSÕES: O Programa Alimenta-te representa uma abordagem estruturada para capacitar populações vulneráveis. A experiência adquirida na fase piloto permitiu o desenvolvimento de um modelo adaptável, que será ampliado em 2025, com o apoio do Prémio Caixa Social e integrado no Projeto RIA (Reduzir Insegurança Alimentar). A sua continuidade permitirá recolher dados mais robustos sobre o seu impacto, contribuindo para a formulação de estratégias eficazes na promoção da saúde através da alimentação.

CO30. THERE IS MARGIN AND NEED FOR IMPROVEMENT OF THE OMEGA-3 INDEX IN THE PORTUGUESE POPULATION

Carlos Cardoso[1,2]; Romina Gomes[1]; João Francisco[1]; Maria Sapatinha[1]; Cláudia Afonso[1,2]; Narcisa Mestre Bandarra[1,2]

[1] Laboratory of Nutrition and Health, Division of Aquaculture, Upgrading, and Bioprospection , Portuguese Institute for the Sea and Atmosphere

[2] CIIMAR, Interdisciplinary Centre of Marine and Environmental Research, University of Porto

INTRODUCTION: The omega-3 index (O3I), corresponding to the sum of the percentages of eicosapentaenoic (EPA, 20:5ω3) and docosahexaenoic (DHA, 22:6 ω3) omega-3 fatty acids in the membrane of red blood cells, is acknowledged as a critical biomarker for cardiovascular disease risk. Factors affecting O3I are not fully understood. A seminal study was thus conducted in the Portuguese population.

OBJECTIVES: To analyse the results of the performed study on O3I and seafood consumption in the Portuguese population, thereby offering a meaningful insight about this nutritional risk factor in Portugal; and to identify which factors affect O3I.

METHODOLOGY: A representative sample of the Portuguese population (1,126 individuals) involving blood sampling for the determination of O3I and answering a questionnaire was studied. Participants were asked to indicate their seafood consumption frequencies and other relevant data. An updated gas chromatography technique was used to quantify EPA and DHA.

RESULTS: The average O3I of the population was 4.82±2.30%. There was an

increasing trend of O3I with higher amounts of consumed seafood, achieving an O3I of ~6% with ≥3 weekly meals. Age was relevant, presenting 50-79 year old males higher O3I values than 18-49. Physical activity led to higher O3I, 5.05±2.39% *vs*. 4.64±2.21%. Smoking lowered O3I, 4.38±1.97% *vs*. 4.89±2.34%. Physical activity had a larger effect upon O3I in consumers with high seafood consumption. In elderly (>70 year old), there was an inverse relation between O3I levels and high blood pressure.

CONCLUSIONS: The determined O3I was below 8%, which is a desirable threshold for achieving a low cardiovascular disease risk, thus signalling a need for improvement of this parameter in the Portuguese population. Hence, dietary habits should be changed in the direction of increasing seafood consumption with fatty small pelagic fish (sardine, mackerel, etc.) and a healthier lifestyle (more physical activity and no smoking) should be pursued.

CO31. ASSOCIATION BETWEEN DIETARY INTAKE, INTERDIALYTIC WEIGHT GAIN, AND HYPERHYDRATION IN HEMODIALYSIS PATIENTS

Carolina Anjo Dias[1]; Cristina Garagarza Antunes[2,3]

[1]Escola Superior de Tecnologia da Saúde de Lisboa

[2] Nutrition Department, Nephrocare

[3] Nutrition Laboratory, Faculty of Medicine, University of Lisbon

INTRODUCTION: Overhydration is a risk factor for morbidity and mortality in hemodialysis (HD) patients. Food intake influences fluid retention and interdialytic weight gain (IDWG), impacting hydration status.

OBJECTIVES: To evaluate the relationship between the intake of different foods, IDWG and relative hydration status in HD patients.

METHODOLOGY: This was an observational and longitudinal study with 582 patients from 37 Portuguese dialysis centers. Correlations between food intake and IDWG variables and relative hydration status were analyzed using Spearman's coefficient. Binary logistic regression models were used to assess the impact of dietary intake on the risk of overhydration (dictomized in ≥15% or <15%). The significance level adopted was p<0.05.

RESULTS: Eight food items showed significant correlations with higher IDWG, namely, ice cream (p=0.027), sausage (p=0.005), olive oil (p=0.046), margarine (p=0.020), onion (p=0.033), preserved fruit (p=0.048), olives (p=0.021) and Coke (p=0.034) whereas turkey/rabbit (p=0.037) and lean fish (p=0.047) intake correlated with lower IDWG. Six food items showed significant correlations with relative hydration status: liver (p=0.009) and cornbread (p=0.048) showed positive correlations and chocolate (p=0.037), strawberry (p=0.033), iced tea (p=0.019) and pizza (p=0.021) correlated negatively. Bacon consumption [OR=1.158; p<0.001], snacks [OR=1.291; p=0.001], carrot [OR=1.041; p=0.003], pepper [OR=1.047; p=0.041], cherry [OR=1.021; p=0.011] and soup [OR=1.004; p=0.006] are predictors of greater hyperhydration, regardless of age, sex, diabetes and HD time. Rice consumption [OR=0.989; p=0.027], cookies [OR=0.926; p=0.031] and grapes [OR=0.973; p=0.009] are predictors of lower hyperhydration, regardless of age, sex, diabetes and HD time.

CONCLUSIONS: Dietary intake can influence hydration status in HD patients, with some foods contributing to a higher risk of overhydration. Personalized nutritional strategies may help minimize fluid retention and improve hydration management in these patients.

CO32. SITTING TIME AND ASSOCIATED FACTORS IN OLDER ADULTS - A CROSS-SECTIONAL STUDY FROM THE NUTRIFUNCTION PROJECT

Cátia Ferreira[1]; Joana Mendes[2,3]; Rita Guerra[2-4]; Cláudia Silva[2,3]; Micaela Rodrigues[1]; Rui Valdiviesso[1,5]; Ana Rita Sousa-Santos[6-8]; Alejandro Santos[1]; Nuno Borges[1,5]; Teresa F Amaral[1,4]; Ana Sofia Sousa[2,3,9]

[1] Faculty of Nutrition and Food Sciences of the University of Porto

[2] FP-I3ID, FP-BHS, Faculty of Health Sciences, Fernando Pessoa University

[3] RISE-Health, Fernando Pessoa University, Fernando Pessoa Teaching and Culture Foundation

[4] INEGI – Institute of Science and Innovation in Mechanical and Industrial Engineering, LAETA - Associate Laboratory for Energy, Transports and Aerospace

[5] RISE-Health, Faculty of Nutrition and Food Sciences of the University of Porto

[6] University Institute of Health Sciences (IUCS - CESPU)

[7] Associate Laboratory i4HB - Institute for Health and Bioeconomy, University Institute of Health Sciences - CESPU

[8] UCIBIO - Applied Molecular Biosciences Unit, Forensics and Biomedical Sciences Research Laboratory, University Institute of Health Sciences

[9] Center for Innovative Care and Health Technology (ciTechcare), Polytechnic of Leiria

INTRODUCTION: The number of individuals aged 65 years or older in the world is expected to double by 2050. In older adults, sedentary behaviour, particularly prolonged sitting time, has been associated with increased health risks and mortality, but remains poorly explored.

OBJETIVES: To characterize a sample of Portuguese older adults according to the time they spend sitting, and to explore the association between sitting time and nutritional and health factors.

METHODOLOGY: A cross-sectional study was conducted in a convenience sample of older adults from day centres and nursing homes in Marco de Canaveses and Penafiel, Porto, between October 2023 and May 2024. Data collected included age, marital status, type of residence, daily sitting hours, chronic medication and presence of cognitive alterations. Anthropometric, functional, and bioimpedance results were collected and analysed through hypothesis tests and logistic regression.

RESULTS: A total of 94 older adults were included (median age of 79 years, ranging from 65 to 98 years) and 72.3% were females. The median daily sitting time was 10 hours. Individuals who spent more time sitting (≥ 10 hours/day) tended to be older, predominantly widowed, and living in institutions (p<0.05). These individuals were polymedicated and presented higher risk of cardiometabolic complications (p<0.05). Furthermore, they exhibited lower gait speed, cognitive impairment, higher risk of undernutrition, frailty and sarcopenia, compared to those who were sitting less than 10 hours per day (p<0.05). Sitting time was higher for individuals with poor cognitive status (OR=4.41; 95%CI:1.39-13.97) and undernourished (OR=4.55; 95%CI:1.26-16.50), after adjusting for sex, age and type of residence.

CONCLUSIONS: Older adults living in community and institutions spend a significantly long time sitting per day and this is worrying. Among the potentially modifiable risk factors associated with increased sitting time in this population are the poor cognitive and nutritional status.

CO33. GUT MICROBIOTA SHIFTS AFTER A WEIGHT LOSS PROGRAM IN ADULTS WITH OBESITY: THE WLM3P STUDY

Vanessa Pereira[1,2]; Amanda Cuevas-Sierra[1,3]; Victor de la O[3,4]; Rita Salvado[1,5]; Inês Barreiros-Mota[1,6]; Inês Castela[1,6]; Alexandra Camelo[7,8]; Inês Brandão[7,8]; Christophe Espírito Santo[7,8]; Ana Faria[1,6,9]; Conceição Calhau[1,9]; Marta P Silvestre[1,6,9]; André Moreira-Rosário[1,6,9]

[1] NOVA Medical School| Faculty of Medical Sciences, NMS|FMC, Nova University of Lisbon

[2] Nutrition Department Farmodiética|Farmodiética

[3] Precision Nutrition and Cardiometabolic Health, IMDEA-Alimentacion Institute (Madrid Institute for Advanced Studies), Campus of International Excellence (CEI), UAM + CSIC

[4] Faculty of Health Sciences, International University of La Rioja (UNIR)

[5] Primary Care Research Unit of Salamanca (APISAL), Salamanca Primary

Healthcare Management, Castilla y León Regional Health Authority (SACyL), Institute of Biomedical Research of Salamanca (IBSAL)
[6] CHRC, NOVA Medical School| Faculty of Medical Sciences, NMS|FMC, Nova University of Lisbon
[7] CATAA—Centro de Apoio Tecnológico Agro-Alimentar, Zona Industrial de Castelo Branco
[8] University of Coimbra - Center for Functional Ecology Science for People & the Planet, TERRA Associated Laboratory, Department of Life Sciences, Calçada Martim de Freitas
[9] CINTESIS@RISE, NOVA Medical School| Faculty of Medical Sciences, NMS|FMC, Nova University of Lisbon

INTRODUCTION: The global obesity epidemic necessitates innovative weight management strategies. The gut microbiota has emerged as a critical focus in obesity research, as it may play an important role in body weight and composition.
OBJECTIVES: This study aimed to evaluate the effects of an intensive, multicomponent weight management program (Weight Loss Maintenance 3 Phases Program, WLM3P) on gut microbiota composition and structure compared to a standard low-carbohydrate diet (LCD) in adults with obesity.
METHODOLOGY: This sub-analysis at 6 months of the WLM3P randomized controlled trial for weight loss and its maintenance included 58 adults with obesity (BMI 30.0–39.9 kg/m^2) randomly assigned to the WLM3P group (n=29) or the LCD group (n=29) (NCT04192357) who agreed to provide faecal samples at baseline and 6 months. The gut microbiota composition was assessed through 16S rRNA gene sequencing. Alpha and beta diversity metrics were evaluated, and the differential abundance of bacterial genera was analyzed using EdgeR and LEfSe. A regression model was employed to examine the interactive relationships between microbiota changes and clinical outcomes.
RESULTS: After 6 months, alpha diversity ($p = 0.030$) and beta diversity ($p = 0.006$) increased in the WLM3P group). In contrast, no significant changes in the LCD group were observed. Differential abundance analysis identified distinct bacterial profiles between the two dietary interventions at 6 months. LEfSe analysis showed significantly higher *Faecalibacterium* levels in the WLM3P group (LDA score = 2.0, FDR < 0.05). Moreover, participants in the WLM3P group with higher *Faecalibacterium* abundance experienced greater reductions in fat mass (kg, %) and visceral fat (cm2) (all $p < 0.05$) compared to those with high *Faecalibacterium* abundance in the LCD group.
CONCLUSIONS: This study provides evidence of differential effects of dietary interventions on gut microbiota, suggesting that the WLM3P program may improve metabolic health by modulating gut microbiota.
Trial registration number: NCT04192357.

CO34. THE ROLE OF FOOD EDUCATION IN THE PREVENTION OF SARCOPENIA IN A PSYCHIATRIC HOSPITAL

Miguel Santos[1]; Mónica Rodrigues[2]; Diana Alves[3]; Nuno Borges[4]
[1] Faculty of Nutrition and Food Sciences, University of Porto/Conde Ferreira Hospital
[2] Faculty of Medicine - University of Porto/ Institute of Public Health, University of Porto
[3] Faculty of Psychology and Educational Sciences, University of Porto
[4] Faculty of Nutrition and Food Sciences, University of Porto

INTRODUCTION: Sarcopenia is characterized by decreased muscle mass and loss of muscle strength, and may be more prevalent in institutionalized psychiatric patients compared to patients who do not have these conditions. The preventive and therapeutic role of nutritional monitoring and food education by the nutritionist, in psychoeducation sessions (PSE) with multidisciplinary teams, can be an asset in the prevention of this disease, and can increase the health literacy of hospital teams, and thus promote an improvement in the clinical status of the user and even the prevention of sarcopenia, also assisting in the correct food intake through the reduction of food waste.
OBJECTIVES: To evaluate the role of PSE in the sarcopenia literacy of a multidisciplinary team in a psychiatric hospital, verifying the prevalence of sarcopenia in a group of experimental users(EG) compared to a control group(CG).
METHODOLOGY: Study carried out in a psychiatric hospital unit in the city of Porto (Portugal), from September 2023 to June 2024, of a descriptive epidemiological nature with quasi-experimental content in a convenience sample. Satisfaction indicators of the professionals involved in the EG groups were also analyzed. The wards were divided in alphabetical order, with a total sample of users of n=193, and two groups were created equally, EG (n=105) and CG (n=88), from a hospital population in which the major pathology is psychiatric, and two evaluations were carried out in these groups with a spacing of 8 months, using SARC-F screening tools, NRS2002 and FrailScale, anthropometric assessment and definition of sarcopenia. PSE sessions were held for the multidisciplinary team of the EG (n=59), gauging the knowledge about sarcopenia before and after training.
RESULTS: PSE sessions seem to be effective in improving the health literacy of professionals, but they did not demonstrate a significant impact on the nutritional status or prevalence of sarcopenia of patients.

CO35. EFICÁCIA DA NUTRISCORE E MST NA IDENTIFICAÇÃO DO RISCO NUTRICIONAL, TENDO COMO PADRÃO A PG-SGA© E OS CRITÉRIOS GLIM EM DOENTES ONCOLÓGICOS EM AMBULATÓRIO

Maria Inês Ascenção[1]; Bruno Oliveira[1,2]; Elsa Madureira[3]
[1] Faculdade de Ciências da Nutrição e Alimentação da Universidade do Porto
[2] Laboratório de Inteligência Artificial e Apoio à Decisão, Instituto Nacional de Engenharia de Sistemas e Computadores – Tecnologia e Ciência
[3] Serviço de Nutrição, Unidade Local de Saúde do Hospital de São João

INTRODUÇÃO: O *Nutriscore* e o *Malnutrition Screening Tool* (MST), a *Patient-Generated Subjective Global Assessment* (PG-SGA©) e os critérios *Global Leadership Initiative on Malnutrition* (GLIM) são ferramentas de avaliação do risco e do estado nutricional, respetivamente, do doente oncológico.
OBJETIVOS: Comparar as ferramentas Nutriscore e MST na identificação do risco nutricional, tendo como referência a ferramenta PG-*SGA*© e os critérios GLIM.
METODOLOGIA: Realizou-se um estudo observacional transversal em adultos com diagnóstico de cancro em pré-tratamento (exceto cirurgia). Recolheu-se dados sociodemográficos (idade, sexo, grau de escolaridade, estado civil e agregado familiar), de estilo de vida (hábitos tabágicos e alcoólicos e a prática de exercício físico) e clínicos (diagnóstico, estádio e tratamento) e foram aplicadas as quatro ferramentas.
RESULTADOS: Desde novembro de 2024 incluíram-se 106 doentes. Os locais de cancro mais classificados em risco nutricional ou malnutrição foram da cabeça-pescoço e trato gastrointestinal. O MST classificou 29,2% e o Nutriscore 6,6% da amostra com risco nutricional. A *PG-SGA*© e os critérios GLIM foram semelhantes na classificação de malnutrição (40,6% VS 43,4%). A sensibilidade e a especificidade do *Nutriscore* tendo a *PG-SGA*© como padrão foram, respetivamente 17% e 100% e tendo os critérios GLIM como padrão foram, respetivamente 15,2% e 100%. A sensibilidade e a especificidade do MST tendo a *PG-SGA*© como padrão foram, respetivamente 71,4% e 98,4% e tendo os critérios GLIM como padrão foram, respetivamente 60,9% e 95,0%. De acordo com o *Nutriscore*, 2,9% dos doentes que não fizeram cirurgia antes tinham risco nutricional *vs*. 13,2% dos submetidos a cirurgia (p=0,095). O MST (p=0,505), o GLIM (p=0,548) e a PG-SGA (p=0,839) não tinham dependência significativa com a submissão a cirurgia.
CONCLUSÕES: O MST é a ferramenta que demonstra um melhor desempenho relativamente ao Nutriscore na identificação de risco nutricional.

CO36. IMPACTO DO SUPORTE NUTRICIONAL PERSONALIZADO NO ESTADO NUTRICIONAL DE DOENTES ONCOLÓGICOS SUBMETIDOS A TRATAMENTO QUIMIOTERÁPICO

Elisa Ruivo[1]; Ana Simas[2]; Ana Barbosa[2]; Tiago Alpuim[2]; Ana Victor Silva[2]; Sarah Lopes[2]

[1] Serviço de Nutrição, Unidade Local de Saúde do Alto Minho, EPE

[2] Serviço de Oncologia, Unidade Local de Saúde do Alto Minho, EPE

INTRODUÇÃO: A nutrição é fundamental no processo terapêutico em oncologia. O Protocolo de Cuidados Nutricionais Integrados no Doente Oncológico da Unidade Local de Saúde do Alto Minho, elaborado em 2024 tem como objetivo estabelecer as linhas de orientação da consulta de nutrição-oncologia, onde a intervenção nutricional molda-se àqueles que são os objetivos e intuito terapêutico, ajustando-se às abordagens de intenção curativa ou paliativa.

OBJETIVOS: Avaliar o impacto do suporte nutricional personalizado no estado nutricional de indivíduos submetidos a tratamento quimioterápico.

METODOLOGIA: Estudo observacional coorte, com 29 indivíduos. A avaliação do estado nutricional foi realizada através do cálculo de Índice de Massa Corporal (IMC), da percentagem de perda de peso (%PP) e albumina sérica (g/dl), no 1.º, 3.º e 6.º ciclos do tratamento quimioterápico. Foram ainda caraterizados o diagnóstico, estádios patológicos e tipo de tratamento quimioterápico. A análises estatística através do *IBM Statistics19®*, incluiu análise descritiva e aplicação de correlações de *Pearson* e *Spearman's*.

RESULTADOS: Os indivíduos avaliados tinham 67,7±8,5 anos, dos quais 48,3% apresentavam como diagnóstico principal neoplasia gástrica, 27,5% colorretal e 17,2% hepatobilio-pancreática. Todos foram submetidos a tratamento quimioterápico, 55,2% com intuito curativo e 41,4% paliativo. Aquando o 1.º ciclo de quimioterapia os indivíduos apresentavam um IMC de 25,7±3,9kg/m^2, %PP não intencional de 6,6±6,5%. e albumina sérica de 3,9±0,54g/dl. Ao 3.º ciclo, o grupo apresentava IMC de 25,0±3,8kg/m^2 e albumina de 4,0±0,47g/dl, enquanto que no sexto ciclo, o IMC era de 24,3±5,8kg/m^2. Indivíduos com estádios mais elevados apresentavam IMC mais baixos (p<0,05), sendo que os IMC mais elevados, se mantiveram mais elevados durante o acompanhamento nutricional (p=0,00) Indivíduos com IMC mais baixos, apresentaram valores mais elevados de albumina sérica, no 3.º e 6.º ciclo de quimioterapia (P<0,05).

CONCLUSÕES: O acompanhamento nutricional individualizado foi essencial para a manutenção do estado nutricional ao longo do tratamento quimioterápico, permitindo a melhoria da albumina sérica nos indivíduos que apresentavam menor valor de IMC.

C.O. VENCEDORES

PRÉMIO

Melhor Comunicação Oral

CO9 | Insufficient hours of sleep is linked to inadequate lifestyle in children - preliminary results from run up study

MENÇÕES HONROSAS

Nutrição Comunitária e Saúde Pública

CO28 | Chrononutrition patterns from ages 4 to 13 and association with adiposity at 13

Nutrição Clínica

CO33 | Gut microbiota shifts after a weight loss program in adults with obesity: the WLM3P study