

CO5. SENSORY PREFERENCE AS A VALUABLE TOOL TO ESTABLISH SALT REDUCTION IN BREAD

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INTRODUCTION: There are relevant health conditions that do not fall into discrete disease categories and are important to evaluate individuals' nutrition status and predict poor health outcomes. Data regarding the coexistence of these conditions is lacking.

OBJECTIVES: The purpose of this work is to evaluate the coexistence of sarcopenia, frailty, undernutrition, and obesity in a nationwide sample of Portuguese older adults.

METHODOLOGY: 1,500 older adults with age ≥ 65 years, representative of Portuguese Population in terms of sex, age, education, and regional area were included within Nutrition UP 65 study. Sarcopenia was defined according to the European Working Group on Sarcopenia in Older People (EWG-SOP), frailty was classified according to Fried et al., undernutrition status was evaluated by Mini Nutritional Assessment-Short Form (MNA-SF), and obesity was classified following World Health Organization (WHO) criteria. The association between individuals' characteristics and number of conditions identified was analysed through logistic regression analysis.

RESULTS: From the 1,500 individuals included, 628 (41.9%) had at least one condition and 314 (20.9%) were identified with two or more. The highest coexistence was observed between frailty and undernutrition or undernutrition risk ($n=103$, 6.9%) and frailty and obesity ($n=152$, 10.5%). Sarcopenic obesity was only identified in 12 (0.8%). Furthermore, in multivariate analyses, the presence of two or more conditions was directly associated with age > 75 years and poor or very poor self-perception of health status, and inversely associated with being men, having higher education, being married or in a common-law marriage, and presenting moderate alcohol consumption.

CONCLUSIONS: In this sample, more than 6 in 10 older adults presented at least one condition evaluated and two or more conditions were present in circa one-fifth. These conditions were identified in a high proportion of older adults namely among the oldest old. Nutrition strategies should be developed to target these individuals.

INTRODUCTION: Bread is a staple food and one of the major contributors to dietary salt intake. Salt has impact on bread sensory properties as it acts as flavour modifier, and influences crust development and crumb structure. While reduction of salt content in bread is paramount, it may compromise bread organoleptic characteristics and sensory acceptance by consumers.

OBJECTIVES: The major goal of this study was to evaluate the impact of salt reduction on bread sensory evaluation, and select the reduction levels with best consumers' acceptance.

METHODOLOGY: Four types of bread formulations were tested: "D'água", "Carcaça", "Mistura", and "Regueifa", produced with different salt concentrations (0.0%, 0.8%, 1.1%, 1.3%, 1.4%, 1.6%, 1.8%, 2.0%, 2.2%, 2.4%, 2.6%, 2.8%, 3.0%, 3.2%, 3.4%, 3.6%, 3.8%, 4.0%, 4.2%, 4.4%, 4.6%, 4.8%, 5.0%, 5.2%, 5.4%, 5.6%, 5.8%, 6.0%, 6.2%, 6.4%, 6.6%, 6.8%, 7.0%, 7.2%, 7.4%, 7.6%, 7.8%, 8.0%, 8.2%, 8.4%, 8.6%, 8.8%, 9.0%, 9.2%, 9.4%, 9.6%, 9.8%, 10.0%). A sensory panel composed by 8 members was trained for descriptive analysis according to the guidelines in the ISO 8586 (2012). Sensory acceptability tests were carried out, with 80 non-trained members. Statistical models for sensory preference evaluation were developed using External Preference Mapping. Statistical comparison was performed using as control bread with 1.4% of salt (legal value allowed).

RESULTS: Overall, salt reduction had limited impact on sensory evaluation. "Overall assessment" presented significant differences for "D'água" ($p=0.005$), "Carcaça" ($p<0.001$), and "Mistura" ($p<0.001$). Results obtained from the consumer test only showed significant differences for salt reduction with "Taste liking" ("D'água", $p<0.001$; "Carcaça", $p<0.001$; "Mistura", $p<0.001$; "Regueifa", $p<0.001$) and "Overall liking" ("D'água", $p=0.002$; "Carcaça", $p=0.001$; "Mistura", $p<0.010$; and "Regueifa", $p=0.005$). External preference mapping indicated consumer preferences and enabled selection of the lowest salt concentration with best acceptance, namely 0.8% for "D'água" bread; 0.8% for "Carcaça" bread; 1.0% for "Mistura" bread; and 1.1% for "Regueifa" bread.

CONCLUSIONS: The results of the present study indicate that it is possible to reduce salt concentration in all bread types compared to the amount regulated (1.4%) without compromising consumers' acceptance.

CO6. FRAILTY AND ASSOCIATED FACTORS IN HEART FAILURE OUTPATIENTS - PRELIMINARY DATA FROM THE DEUS EX MACHINA STUDY

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INTRODUCTION: Frailty is prevalent among heart failure (HF) patients. Both conditions share pathophysiological mechanisms and have reciprocal influences in their prognosis.

OBJECTIVES: To determine the frequency of frailty in HF outpatients and their associations with HF severity and nutritional status.

METHODOLOGY: Patients were recruited from an outpatient clinic in a University Hospital. Left Ventricular Ejection Fraction (LVEF) and New York Heart Association

CO4. COEXISTENCE OF SARCOPENIA, FRAILTY, UNDERNUTRITION AND OBESITY IN A REPRESENTATIVE SAMPLE OF THE PORTUGUESE ELDERLY POPULATION

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