Conclusion: The YC-PEM Brazil has acceptable initial psychometric properties and is a valid option to evaluate the participation of young Brazilian children, with or without disabilities, in clinical practice and research.
Implications: The instrument can help health professionals to identify the levels of participation of children aged 0 to 5 years and plan interventions aspired at improving participation in different contexts. In addition, caregivers, who are active agents in the child's support process, can learn about participation and develop skills that promote greater management of their children's levels of functionality and autonomy.
Keywords: Child Health, Social Participation, Data Reliability

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435

PEAK EXPIRATORY FLOW AS A PREDICTOR OF DYNAPENIA IN COMMUNITY-DWELLING OLDER ADULTS: A CROSS-SECTIONAL STUDY

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Background: Aging brings damage to the musculoskeletal system, which may result in a decline in neuromuscular strength, a condition called dynapenia. Additionally, there may be impairment of strength and/or respiratory function, which promotes negative outcomes and can potentiate or accelerate the onset of dynapenia in older adults. Previous studies have shown the association of respiratory variables with sarcopenia, as well as suggesting cut-off points as diagnostic criteria for this condition. However, the identification of the association between peak expiratory flow (PEF) obtained by means of the *peak flow meter* with dynapenia, as well as the proposition of cut-off points to predict it in brazilian older adults, have not yet been found in the available literature.
Objectives: To compare the values of PEF between dynapenic and non-dynapenic older adults, to assess the association of PEF with the diagnosis of dynapenia, and to establish cutoff points for PEF to predict dynapenia.
Methods: Cross-sectional study conducted with 382 (70,03±7,30 years) community-dwelling older adults from the urban area of Macapá, Amapá. Peak expiratory flow (PEF) obtained using a *Peak Flow Meter* and dynapenia based on handgrip strength were evaluated, considering three diagnostic criteria: 1(<26 kg for men and <16 kg for women), 2(<30 kg for men and <20 kg for women), and 3(based on the sample's BMI and sex). The Student's t-test was used for group comparisons, and crude and adjusted analyses using a binary logistic regression model were performed to verify the association between PEF and dynapenia ($p<0,05$). Receiver Operating Characteristic (ROC) curves with parameters of area under the ROC curve (AUC), sensitivity, and specificity, with a 95% confidence interval and a significance level of 5%, were generated to identify potential PEF cut-off points as discriminators of dynapenia.
Results: Lower PEF values were observed in those with dynapenia when compared to those with non-dynapenia ($p<0,001$); and in the adjusted analysis, there was an inverse association between PEF and dynapenia, independent of the cutoff point considered ($p<0,05$). Cutoff points were established for PEF as a discriminator of dynapenia, namely: 1 (PEF≤260L/min; AUC=0.631; sensitivity=70.42%; specificity=49.20%), 2 (PEF≤280L/min; AUC=0.624; sensitivity=71.94%; specificity=45.27%) and 3 (PEF≤250L/min; AUC=0.640; sensitivity=70.37%; specificity=52.82%).
Conclusion: The elderly with dynapenia had lower PEF values compared to the elderly without dynapenia. In addition, PEF cut-off points have been proposed to predict dynapenia, results which demonstrate that PEF seems to influence the dynapenia process.
Implications: The identification of the association and the diagnostic criteria for dynapenia based on PEF, using the *peak flow meter*, a portable device widely used by physical therapists, can help to screen for this condition and based on this, propose measures for prevention and care of the elderly respiratory health.
Keywords: Aged, Muscle strength, Peak Expiratory Flow Rate

Conflict of interest: The authors declare that there are no conflicts of interest.
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436

VENTILATORY VARIABILITY IN HEART FAILURE, CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND HEART FAILURE PLUS CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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Background: Ventilatory variability (vVE) constitutes the dynamic and complex breath-to-breath oscillation of pulmonary ventilation. However, vVE has only recently been investigated in heart failure and chronic obstructive pulmonary disease (COPD) using the Poincaré approach. Briefly, the Poincaré analysis generates, through scatter plots, two pieces of information: called SD1 (standard deviation 1) and SD2 (standard deviation 2); SD1 is defined as the dispersion of data points perpendicular to the line of identity across the plot's centroid and is a short-term variability descriptor; SD2 describes the dispersion of points along the line of identity and reflects the long-term variability of the signal.
Objectives: the present study aims to perform Poincaré analysis to distinguish vVE patterns between healthy controls and patients diagnosed with COPD, heart failure (HF) and heart failure with COPD during cardiopulmonary exercise testing (CPET).
Methods: Patients with COPD, heart failure, COPD + HF and healthy subjects participated in this research. Lung function was performed according to the recommendations of the American Thoracic Society/European Respiratory Society and adjusted to the Brazilian reference values. Standard echocardiography followed the recommendations of the American Echocardiography Society. A symptom-limited incremental CPET was performed on a cycle ergometer, with increments per minute of 5–10 W for patients and 10–15 W for healthy controls. Poincaré´ analysis was used to calculate vVE using a custom R program (http://www.R-project.org),