

the Kolmogorov-Smirnov test. Comparison between CVH groups was performed using the one-way ANOVA test with Tukey's post hoc (symmetrical distribution) and the Kruskal-Wallis test for independent samples with Dunn's post hoc. Multiple linear regression verified the relationship between the CVH score and the HRQoL domains, with data adjusted for sex and age. The software used for analysis was the Statistical Package for Social Science (SPSS) and the value considered for  $p$  was  $<0.05$ .

**Results:** Of the workers, 25.6% had poor CVH, 27.2% intermediate and 47.1% ideal. Workers with poor CVH [46.26 (6.98)] had lower PC HRQoL values when compared to the intermediate [50.34 (6.53),  $p=0.036$ ] and ideal group [50.07 (6.21),  $p=0.002$ ]. There was also a positive relationship between the CVH score and the PC [ $\beta=0.068$  (95%CI= 0.011 to 0.126),  $p=0.020$ ] of HRQoL.

**Conclusion:** Half of the workers had between poor and intermediate CVH. Those with poor CVH had worse HRQoL on the PC. There was a direct relationship between the CVH score and HRQoL PC.

**Implications:** The use of metrics can be a tool for screening CVH, easy collection and good cost-effectiveness. It is also an opportunity to show workers the importance of physical exercise and proper nutrition.

**Keywords:** Cardiovascular health, Quality of life, Worker's health

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**Ethics committee approval:** The study was approved by the Ethics and Research Committee of Universidade Evangélica de Goiás under number 4.512.382/2021.

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### COMPARTMENTAL THORACOABDOMINAL VOLUME DISTRIBUTION IN PATIENTS WITH PARKINSON'S DISEASE IN THE OFF STATE OF LEVODOPA USE

Pedro Vinicius Manso Porfírio<sup>1</sup>, Lucas Rafael da Silva Fraga<sup>1</sup>, Wagner Souza Leite<sup>1</sup>, Fátima Natário Tedim de Sá Leite<sup>1</sup>, Shirley Lima Campos<sup>1</sup>, Armele Dornelas de Andrade<sup>1</sup>

<sup>1</sup> Departamento de Fisioterapia, Universidade Federal de Pernambuco (UFPE), Recife, Pernambuco, Brasil

**Background:** Parkinson's disease (PD) is a neurodegenerative disorder resulting from the death of motor neurons in the substantia nigra and is associated with reduced lung volumes.

**Objectives:** To analyze the compartmental distribution of thoracoabdominal volumes in PD patients evaluated by optoelectronic plethysmography (OEP) and describe the respiratory function of the sample.

**Methods:** This is a cross-sectional study in which 16 patients (12 men and 4 women), between 50 and 75 years old, classified in stages 2 to 3 of the Hoehn and Yahr Scale, were evaluated by OEP and spirometry. Data collection was performed at the Cardiopulmonary Physical Therapy Laboratory (LACAP) of UFPE.

**Results:** In the analysis of the distribution of thoracoabdominal volumes, there was a predominance of abdominal tidal volume compared to the other compartments (VCab% = 0.34 > VCrcp% 0.13 > VCra% 0.09, with  $p < 0.001$ ). Patients maintained tidal volume (Vt), minute ventilation (Ve), and respiratory rate (RR) within the normal range (Vt  $0.54 \pm 0.22$  L; Ve  $9.198 \pm 3.40$  L/min; RR  $18.25 \pm 5.73$ ), and forced spirometry yielded an FEV1 (% predicted) of  $0.71 \pm 0.17$  L and FVC (% predicted) of  $0.69 \pm 0.58$  L.

**Conclusion:** The results suggest that in the distribution of thoracoabdominal volumes, there was an abdominal predominance

compared to the others. In the respiratory pattern and spirometric variables, patients presented normal ventilation with a predominance of abdominal breathing pattern, despite the presence of longer inspiratory time. Despite the condition of Parkinson's disease, patients without medication therapy and normal respiratory function showed greater ventilation in the abdominal compartment compared to the thoracic compartments.

**Implications:** Despite normal respiratory function, future studies should elucidate the reasons for the disadvantage of thoracic impairments compared to abdominal impairments in the breathing pattern of these patients. An alternative would be to compare this assessment of the respiratory pattern in patients with medication use.

**Keywords:** Parkinson Disease, Plethysmography, Physical Therapy

**Conflict of interest:** The authors declare no conflict of interest.

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### THE INFLUENCE OF FUNCTIONAL CAPACITIES ON THE PARTICIPATION OF ADOLESCENTS WITH CEREBRAL PALSY: PRELIMINARY DATA

Pollyeverlin Rego Rocha<sup>1</sup>, Camila Araujo Santos Santana<sup>1</sup>, Carolina Fioroni Ribeiro da Silva<sup>1</sup>, Monique Maria Silva da Paz<sup>1</sup>, Vitoria Regina Rocha Urruchia<sup>1</sup>, Eloisa Tudella<sup>1</sup>

<sup>1</sup> Núcleo de Estudo em Neuropediatria e Motricidade (NENEM), Universidade Federal de São Carlos (UFSCar), Programa de Pós-Graduação em Fisioterapia (PPG-FT), São Carlos, São Paulo, Brasil

**Background:** The motor dysfunctions that result in the incapacity and participation limitations in individuals with Cerebral Palsy (CP) are described as adjacent alterations from their pathology. The characterization of daily activities and participation is still little explored and studied in the literature to assist practice. We need to know the characteristics of the participation of adolescents with CP to guide a more assertive clinical practice.

**Objectives:** To explore associations between the functional level and the frequency of social participation of adolescents with CP.

**Methods:** Observational cross-sectional study. Adolescents diagnosed with CP, between 12 and 17 years old, without associated cognitive or behavioral changes were assessed. The adolescents were classified by the Brazilian Economic classification criteria ABEP-2022, and regarding the frequency of participation at home, school and community by the Participation scale and environment Measure for Children and Youth (PEM-CY) and the functional levels classified by Gross Motor Function Classification System (GMFCS), Manual Ability Classification System (MACS), Communication Function Classification System (CFCFS), Eating and Drinking Ability Classification System (EDACS) and Vision Function Classification System (VFCS). Data were analyzed descriptively and through Spearman correlations, using the Statistical Package for Social Science.

**Results:** 10 adolescents were evaluated, 5 boys and 5 girls, with a mean age of  $13.90 (\pm 1.79)$ . Regarding socioeconomic status, measured by ABEP, 3 (30%) of the adolescents were classified as B2, 3 (30%) as C1 and 4 (40%) as C2. Classifications of functional levels were: GMFCS level I = 4 (40%), II = 1 (10%), IV = 3 (30%) and V = 2 (20%); MACS level I = 4 (40%), II = 3 (30%) and IV = 3 (30%); CFCFS level I = 2 (20%), II = 3 (30%), III = 4 (40%) and IV = 1 (10%); EDACS level I = 4