

In addition, people with PFP experience decreased performance during objective function tests, such as the single leg hop test (SLHT). Although, theoretically, all the alterations above mentioned may be contributing to the decreased SLHT performance of individuals with PFP, no study has investigated this to date.

**Objectives:** To determine the capacity of physical activity level, BMI, pain level, kinesiophobia and muscle strength of knee extensors in predicting SLHT performance of people with PFP.

**Methods:** Sixty-two women with PFP were included in this study. Demographic data, level of physical activity (Baecke questionnaire), kinesiophobia (Tampa Scale) and average pain in the previous month (Visual Analogue Scale – 0 to 100 mm) were obtained. The objective function was evaluated with the SLHT, in which participants were required to hop forward as far as possible and the distance in centimeters was obtained. The concentric strength of the knee extensors was obtained with an isokinetic dynamometer at 60°/s. A multiple linear regression was performed to determine the capacity of muscle strength, kinesiophobia, BMI, pain and the level of physical activity in predicting the objective function of women with PFP.

**Results:** None of the independent variables (i.e., concentric knee extensor strength, Kinesiophobia, Pain, Physical activity level, BMI) were able to significantly predict the SLHT performance of women with PFP ( $F_{(5,56)}=0.328$ ;  $p=0.884$ ;  $R^2=0.028$ ).

**Conclusion:** Despite the theoretical plausibility, the variables investigated in this study were not able to significantly predict the SLHT performance of women with PFP. It is possible that other variables not investigated in this study, such as the strength of the hip extensors, and the rate of torque development of the knee flexors and extensors may present with better predictive capacity. However, future studies are needed to confirm or refute this hypothesis.

**Implications:** As none of the variables were able to explain the performance of women in SLHT, it remains inconclusive why they present a decreased performance on this task compared to asymptomatic individuals.

**Keywords:** Patellofemoral pain, Objective function, Performance

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**Ethics committee approval:** The study was approved by the Ethics and Research Committee of FCT-UNESP (approval number 4,649,629).

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## ASSESSMENT OF THE FUNCTIONALITY OF HOSPITALIZED ELDERLY INDIVIDUALS AND IDENTIFICATION OF THEIR DISABILITIES

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**Background:** Hospitalization-associated disability (HAD) results from the impact of acute illness and hospital factors and can affect 1/3 of the elderly. This context reflects functional dependency and increased consumption of health resources. Clinical tests applied in the hospital environment help quantify the effects of acute illness and hospitalization.

**Objective:** To evaluate the impact on functionality of hospitalized elderly by means of clinical tests and to assess their correlations.

**Methods:** Cross-sectional study with 40 elderly patients hospitalized for acute illness and who were ambulating independently 2 weeks before admission. Variables assessed: manual grip strength

(MPF) (it was considered as weakness below 27 kgf for men and 16 kgf for women), Short Physical Performance Battery (SPPB) test (evaluates balance, speed and strength with scores from 0 to 12) and gait speed at admission and at discharge.

**Results:** Of those evaluated, 25 were male, mean age was  $77 \pm 7$  years, mean length of stay  $8 \pm 6$  days. At admission, FPM:  $22 \pm 9$  kgf, SPPB score:  $7 \pm 4$  and walking speed:  $0.65\text{m/s} \pm 0.25$ . At hospital discharge: FPM:  $21 \pm 9$  kgf, SPPB score  $8 \pm 4$  and gait speed  $0.60 \pm 0.23\text{m/s}$ . There was no statistically significant difference between FPM and gait speed at admission and at discharge ( $p > 0.05$ ). Only the SPPB showed statistical and clinical significance ( $p = 0.02$ ). Length of stay correlated negatively with FPM ( $p = 0.11$ ,  $r = -0.26$ ) and SPPB ( $p = 0.12$ ,  $r = -0.25$ ). FPM correlated with SPPB ( $p = 0$ ,  $r = 0.58$ ) and with gait speed ( $p = 0$ ,  $r = 0.71$ ).

**Conclusion:** Average of 8 days of hospitalization was not enough to reduce the functionality of the hospitalized elderly by the applied tests, however, there is correlation between loss of strength and functional loss.

**Implications:** FPM, gait speed and SPPB may be useful tools to assess the functionality of hospitalized elderly.

**Keywords:** Activities of Daily Living, Hospitalization, Patient Discharge

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

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**Ethics committee approval:** Universidade Federal de Minas Gerais. 59900222.6.0000.5149

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## PREVALENCE OF DCD AMONG SCHOOL CHILDREN FROM 6 TO 10 YEARS OF AGE: COMPARISON BETWEEN TWO BRAZILIAN REGIONS

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**Background:** Developmental Coordination Disorder (DCD) is characterized by a significant delay in the acquisition and execution of motor skills, impacting children's daily activities and school performance. The most recent prevalence estimates indicate that this disorder affects between 5 and 6% of school-age children. Therefore, we emphasize the importance of investigating the prevalence of DCD in different Brazilian regions.

**Objectives:** To explore the prevalence of risk for DCD and probable DCD in children aged 6 to 10 years from two Brazilian regions.

**Methods:** 199 children aged 6 to 10 years old from public schools in the South (n=89) and Southeast (n=108) regions of Brazil participated in this cross-sectional study. Parents/guardians signed the informed consent form under ethics approval. For screening and identification of alterations in motor function, the Movement Assessment Battery for Children (MABC-2) was used, following all the criteria for the diagnosis of DCD recommended in the literature. The assessment was conducted in schools by trained professionals with experience in motor assessment. Prevalence of risk ( $\leq 15\%$  percentile) and probable DCD ( $\leq 5\%$  percentile) in both regions was calculated and analyzed descriptively. MABC-2 total scores and component scores were compared by region using t-tests, with a significance level of 5%.

**Results:** The sample of this study consisted of 54.3% girls with a mean age of  $7.95 (\pm 1.34)$  years and 45.7% boys with  $7.88 (\pm 1.47)$  years. There were no differences between the mean age and sex

distribution of participants between regions. No differences were found between regions in the total MABC-2 scores ( $p = 0.28$ ). When analyzing the components of the instrument, the regions showed differences in the following domains: Manual Dexterity ( $p = 0.002$ ), Aiming and Catching ( $p = 0.01$ ) and Balance ( $p = 0.01$ ). It was observed that in the Balance component score, children from the South region had higher average scores compared to children from the Southeast region. Children from the Southeast region had higher average scores compared to children from the Southern region in Aiming and Catching and Manual Dexterity. In children from the Southern region of Brazil, 10.1% of the participants had probable DCD and 18% were at risk for DCD. Therefore, 71.9% had a typical motor development. A higher prevalence was found in the Southeast region, with 27.3% of children with probable DCD, 7.3% risk and 65.5% with typical motor performance.

**Conclusion:** The prevalence of DCD and the scores of children in specific motor domains were different across South and Southeast regions of the country. Thus, exploring other contextual factors that may have contributed to these findings is warranted.

**Implications:** The present study made progress towards identifying differences in the motor profile of children from two different regions of the country. Collecting representative data from other regions of the country will help to understand possible variations in motor performance according to the context where the child is inserted.

**Keywords:** Children, Motor skills, Developmental Coordination Disorder

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

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**Ethics committee approval:** Federal University of São Carlos - CAAE: 55391722.5.0000.550/52286421.0.0000.5504

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## IS THERE AN ASSOCIATION BETWEEN UPPER LIMB FUNCTION, FATIGUE AND QUALITY OF LIFE IN INDIVIDUALS WITH MULTIPLE SCLEROSIS? CROSS-SECTIONAL STUDY

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**Background:** Changes in the functions of the upper limbs in individuals with multiple sclerosis are prevalent and present themselves as a common complaint that limits the performance of basic and instrumental activities of daily living, considering the quality of life. **Objectives:** To describe upper limb performance, quality of life and perception of fatigue in people with multiple sclerosis and identify possible relationships between variables.

**Methods:** Descriptive cross-sectional study, with a non-probabilistic and courtesy sample, comprising two groups; people with multiple sclerosis, of both sexes and aged between 18 and 60 years and the second with healthy individuals, matched by age and sex. Recruitment through contact with associations of people with MS and wide dissemination, with posters and folders, in health services. Personalized assessment, including sociodemographic data; performance of the upper limbs through the Test d'Évaluation des Membres Supérieurs des Personnes Âgées instrument, which is composed of eight standardized tasks, which simulate daily activities scored

through the sum of the time spent to perform them; quality of life using the Functional Determination Scale of Quality of Life in patients with MS composed of six domains: mobility, symptoms, emotional state, personal satisfaction, thinking and fatigue, social and family situation with scores ranging from 0 to 176; and fatigue with the Modified Fatigue Impact Scale (MFIS) instrument, which has 21 items and determines the effects of fatigue on cognitive, physical and psychosocial factors, its score varies from 0 to 84. The application of the instruments will be random for each participant. Statistical analyzes using descriptive measures to characterize the sample. To compare means between groups, Student's t-test or similar non-parametric test. Multiple linear regression, adjusted for gender and disease duration variables, to determine the possible influence of upper limb performance on quality of life and on fatigue. Excerpt from the clinical trial approved by the ethics committee (Opinion 4,918,584).

**Preliminary Results:** From May to October 2022, 11 subjects were included in the study. The mean age of the participants was  $35.73 \pm 9.76$ , the mean education was  $16 \pm 2.36$  years of study and the mean time since diagnosis was  $6.6 \pm 4.58$  years. Pearson's expressive test showed that there was no positive relationship between performance in the upper limb test and quality of life ( $r = -0.024$   $p = 0.94$ ) and positive and weak between upper limb function and fatigue ( $r = 0.27$   $p = 0.41$ ), quality of life and fatigue had a negative and moderate voice ( $r = -0.46$   $p = 0.15$ ).

**Conclusion:** Although none of the correlations presented was statistically significant, there is an attempt to that the better performance of the upper limbs is related to a lower perception of fatigue, as well as a higher quality of life index.

**Implications:** An ongoing study, investigating the evolution between the variables and how they can influence each other, may present interventions for intervention in upper limbs.

**Keywords:** Upper Extremity, Multiple Sclerosis, Quality of Life

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

**Acknowledgment:** Association of People with Multiple Sclerosis DF (APEMIGOS), Association of Special Physical Education Training Center (CETEF), University of Brasília and Health Department DF.

**Ethics committee approval:** This project was approved by the Research Ethics Committee of the Faculty of Ceilândia (CEP/FCE) of the University of Brasília by Opinion 4,918,584

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## USE OF THE WHODAS QUESTIONNAIRE TO SCREEN FOR PHYSICAL INACTIVITY IN PATIENTS WITH COPD

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**Background:** COPD is described as a progressive and persistent airflow limitation, with the presence of pulmonary and extrapulmonary manifestations such as dyspnea, reduced exercise capacity and muscle weakness, which impairs functional performance and physical activity as the disease worsens. The functional performance can be assessed by the World Health Organization Disability Assessment Schedule 2.0 (WHODAS 2.0) questionnaire, as it is an instrument that encompasses biopsychosocial principles according to the International Classification of Functioning, Disability and Health, however there is no knowledge whether this instrument can track physical inactivity in this population.