environmental factors in the home, daycare/preschool, and community sections.
Objectives: To identify predictors for participation at home by children between zero and five years of age with and without disabilities.
Methods: Cross-sectional and descriptive study. Those responsible for children with or without disabilities, from age 0 to 5 years and 11 months, recruited from university hospitals and teaching clinics through spontaneous demand were included. The 143 participants answered a sociodemographic questionnaire followed by the application of the YC-PEM. The outcome variables were frequency, with a mean score from 0 to 7, and involvement, from 0 to 5, of YC-PEM. The variables analyzed as predictors were environmental factors of the YC-PEM, classified into supports, barriers, environmental helpfulness, environmental resources and overall environmental support; sex, age in months and typicality (with or without disability) of the children; gender, age in years and schooling of those responsible; family income. The predictor analysis was carried out in two steps: 1) Spearman's correlation check to measure the association between variables, significant if $p<0.20$; and 2) Simple regression for continuous variables and binary regression for dichotomous variables identified as significant in step 1, significant if $p<0.05$, presenting r^2, which portrays the proportion of predictor variance in relation to the outcome.
Results: No correlation was found between the typicality of the child and the frequency (p=0.768) and involvement (p=0.240) in participation; the same was observed for the other variables related to the child, guardian, and family income. It was observed that the environmental factors analyzed by the YC-PEM itself predicted participation: environmental supports predicted both attendance (r^2=0.046, p=0.010) and involvement (r^2=0.037, p=0.021) at home. In addition, the frequency of participation was also predicted by the help (r^2=0.048, p=0.009) and support (r^2=0.046, p=0.010) present in the environment.
Conclusion: It was observed that having or not having a disability does not interfere with children's participation at home, being predicted by the environmental factors of the house. Therefore, having more supports and aids at home makes the child carry out activities more frequently and with commitment.
Implications: The results can guide the planning of interventions aimed at increasing the participation of young children with and without disabilities, in addition to enabling collaboration between therapists and family members to support activities at home.
Keywords: Child health, Home environment, Social Participation

Conflict of interest: The authors declare no conflict of interest.
Acknowledgment: Not applicable.
Ethics committee approval: Ethics Committee of the Faculty of Health Sciences of the Federal University of Rio Grande do Norte – FACISA/UFRN, under registration CAEE: 79628017.0.0000.5568.

https://doi.org/10.1016/j.bjpt.2024.100934

349

PREVALENCE OF NEUROMUSCULOSKELETAL DISABILITIES IN CHILDREN WITH CEREBRAL PALSY

Nadine Oliveira Cabral[1], Caroline Zaia de Assis[1], Luiza Miranda Lucas[1], Amanda Larissa Oliveira Lima[1], Aline Martins de Toledo[1], Kênnea Martins Almeida Ayupe[1]
[1] *Departamento de Fisioterapia, Programa de Pós-Graduação em Ciências da Reabilitação, Universidade de Brasília (UnB), Brasilia, Distrito Federal, Brasil*

Background: Throughout growth and development, children with Cerebral Palsy (CP) progressively develop neuromusculoskeletal deficiencies. These deficiencies interfere with the ability and performance of activities and social participation, and it is of great importance to identify which are the most frequent deficiencies for adequate therapeutic planning.
Objectives: To verify the frequency of the main neuromusculoskeletal deficiencies in children and adolescents with CP at different levels of the Gross Motor Function Classification System (GMFCS).
Methods: Observational and descriptive study. Forty-five children and adolescents diagnosed with (CP) between 3 and 18 years of age from all GMFCS levels were included. The research participants are patients from the neuropediatrics outpatient clinic of the University Hospital of Brasília. Two trained examiners performed a physical assessment of the participants and collected the following variables indicative of neuromusculoskeletal deficiencies, characterizing them as present or absent: equinovarus or valgus foot; decreased range of motion (ROM) or flexion stiffness of knee, elbow, and wrist joints; hip in wind. The percentage of migration (PM) of the hip was also evaluated through radiographic imaging, with the aid of the HipScreen application to calculate the percentage and using cutoff points to determine the presence or absence of hip subluxation and/or dislocation. Statistical analysis was performed using descriptive statistics.
Results: 45 children/adolescents participated, mean age 6.58 years, 62.2% male, 57.7% bilateral spastic, 31.1% classified at level IV of the GMFCS. The most prevalent deficiency was the equine foot, present in 73.3% of the participants, both present in 40% of the evaluated ones. Flexion stiffness of the knees (24.4%) and elbows (13.3%) was observed in children classified as levels III, IV and V of the GMFCS. Rigidity of the flexed wrist was found in 24.4% of the GMFCS II, IV and V children. Two GMFCS V participants had hips in windy conditions. The mean MP of the hip was 18.47 ($\pm$19.95), being lower in GMFCS I (4.50, $\pm$ 5.98) and becoming progressively higher with the increase in the GMFCS level, reaching 22. 95 ($\pm$32.75) in GMFCS V. It was observed that 35.5% of the sample had hip subluxation, distributed in levels II to V, while hip dislocation was present in 4.4% of the sample and only for the GMFCS V level.
Conclusion: Among the deficiencies analyzed, the equine foot affected the sample more homogeneously, and it is concluded that the GMFCS V level is the most affected by deformities in relation to the other levels, and it is important to highlight that children at this level tend to develop the hip dislocation.
Implications: The results allow us to infer that preventive interventions should be used in children and adolescents with CP, to avoid the emergence of the deficiencies and subsequent deformities, mainly the development of the equine foot.
Keywords: Cerebral Palsy, Skeletal muscle, Motor Activity

Conflict of interest: The authors declare no conflict of interest.
Acknowledgment: Not applicable.
Ethics committee approval: Ethics Committee in Research of Faculdade de Ceilândia - University of Brasília, CAAE: 28540620.6.2005.809.

https://doi.org/10.1016/j.bjpt.2024.100935

350

HOSPITAL ADMISSIONS FOR CIRCULATORY SYSTEM DISEASES IN THE STATE OF BAHIA: A LOOK AT THE PRE- AND POST-PANDEMIC PERIOD

Nadja dos Santos Marques[1], Wagner Santos Araújo[2], Sanielle Freire Reis[2], Marília Caixeta de Araújo[2], Jessica de Oliveira Pereira Marques[2], Silas dos Santos Marques[3]
[1] *Faculdade Nordeste (FAINOR), Vitória da Conquista, Bahia, Brasil*
[2] *Faculdades Integradas (Unesulbahia), Eunápolis, Bahia, Brasil*
[3] *Faculdade Iguaçu, Capanema, Paraná, Brasil*

Background: The New Coronavirus Disease (NCCD-19) has presented itself as an unprecedented challenge to global public health, with the World Health Organization declaring a pandemic emergency in March 2020. The pandemic has challenged the response capacity of health systems and affected the ability of hospitals to provide care, which may have influenced hospitalizations for other causes unrelated to respiratory dysfunctions due to COVID-19, such as circulatory system diseases. These, in turn, cause great impact on public health, because they can generate changes that culminate in sick leave and/or the inability to maintain work activity, besides considerably increasing hospital costs due to the need for expensive hospitalizations, surgeries, and medications.
Objective: To compare hospitalizations for circulatory system diseases in Bahia before and after the emergence of COVID-19 and to observe the most frequent circulatory diseases in 2022 (the year in which the end of the COVID-19 pandemic was decreed.
Methods: This is a retrospective cohort study, of descriptive nature and quantitative approach, based on secondary data, using hospital morbidity data of hospitalizations in Bahia, obtained through the Sistema de Informações Hospitalares do Sistema Único de Saúde (SIH-SUS), available at DATASUS. Data from the pre-pandemic period (2017 to 2019) were compared with the post-pandemic period (2020 to 2022). Data were organized and analyzed using Excel 2010 software.
Results: Between the years 2017 to 2019, 213,632 hospitalizations for circulatory system diseases were recorded, this number represents 8.7% of the total hospitalizations that there were in the State of Bahia in this period. Between the years 2020 to 2022, the recorded number of hospitalizations for diseases of the circulatory system was 201,610, representing 8.9% of the total hospitalizations in the State of Bahia. Despite the reduction in the absolute number of hospitalizations by 5.6%, the percentage of patients hospitalized for circulatory diseases increased from 8.7% to 8.9% when evaluating the total hospitalizations by all causes. In the year 2022, hospitalizations for circulatory system conditions reached the number of 72,722, with stroke, heart failure and acute myocardial infarction being the most frequent, with respectively 20.6%, 18.4% and 12.9% of the total.
Conclusion: The numbers presented and analyzed show a difference, albeit discrete, in the behavior of hospitalizations for circulatory system diseases in the state of Bahia. Moreover, the three circulatory diseases with the highest number of hospitalizations have great potential to generate disabilities, with these patients requiring, therefore, multiprofessional assistance. Thus, the data presented reiterate the impact of circulatory system diseases for public health in Brazil and point to the need for a deeper and more detailed observation to understand the real impact that the pandemic of COVID-19 brought to the epidemiological scenario.
Implications: The data presented has the potential to reinforce the importance of cardiovascular disease prevention, reducing the deleterious impact of functionality, and may generate important health care spending reduction impacts.
Keywords: Public Health, Cardiovascular Diseases, Hospitalization

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

Acknowledgment: Not applicable.

Ethics committee approval: No applicable

https://doi.org/10.1016/j.bjpt.2024.100936

351

THE ACUTE EFFECT OF TDCS COMBINED WITH PHYSIOTHERAPY ON GAIT TURNING IN INDIVIDUALS WITH PARKINSON'S DISEASE: A RANDOMIZED CONTROLLED TRIAL

Naiara Cândido Ferreira[1], Dionatan Costa Rodrigues[1], Maria Eduarda Brandão Bueno[1], Andressa Leticia Miri[1], Suhaila Mahmoud Smaili[1]
[1] *Department of Physical Thterapy, State University of Londrina (UEL), Londrina, Paraná, Brazil*

Background: Parkinson's disease (PD) is associated with classic motor symptoms such as bradykinesia, rest tremor, muscle rigidity, postural instability, and gait disturbances. They result in reduced gait speed, decreased stride length, increased axial stiffness, and decreased pace that together can trigger difficulties in performing turning. As gait disorders are poorly responsive to levodopa therapy, investigations of additional treatments such as physiotherapy and neuromodulation are of utmost importance. The transcranial direct current stimulation (TDCS) consists of a low intensity electrical current capable of altering the cortical excitability, but its application still brings divergent results and there are no studies that verified the effectiveness of TDCS in turning gait.
Objectives: To verify the effectiveness of transcranial acute anodic direct current stimulation in the motor cortex region (Cz or C3-Cz-C4) combined with physical therapy in improving gait turning in individuals with PD.
Methods: This was a randomized, sham-controlled clinical trial, approved by the Brazilian Registry of Clinical Trials RBR-3mywq86. The sample was composed of 42 individuals diagnosed with idiopathic PD, evaluated in the "on" phase of dopaminergic medication. Participants were divided into four groups: 1) active CBT (Cz) + physical therapy, 2) active CBT (C3-Cz-C4) + physical therapy, 3) sham CBT + physical therapy, and 4) educational lecture + physical therapy. The current intensity was 2mA, applied for 20 minutes prior to the 30-minute physiotherapy session with exercises aimed at improving balance and gait. For the instrumental evaluation of gait turning, the 3D motion analysis system was used in the pre-intervention, post-intervention (immediately after the end of the intervention) and follow up (24 hours after the end of the intervention) moments. For the turning analysis, the patients were instructed to walk at normal speed along a seven-meter walkway and turn around a cone positioned in the middle of the pathway. The following variables were measured: center of mass amplitude, speed, largest radius, number of steps, step length, and cadence. Two-way repeated measures ANOVA was used to compare the groups according to stimulation condition (real, sham, or education), time (pre- and post-intervention), and group vs. time interaction. The significance value adopted was 5%.
Results: No statistically significant differences were found for all gait turning variables when considering the interaction time (pre- and post-intervention) vs. group (active CTE, sham CTE, or Education).
Conclusion: The results of the present study suggest that one session of CBT combined with physical therapy was not effective in improving gait turning in individuals with PD.
Implications: CBT has been used as an additional tool to clinical treatment, but future studies are needed to investigate different stimulation strategies (isolated, combined and multitarget), as well as the frequency, intensity, and duration of treatment in improving gait turning in people with PD.