

however, only 15 children (46.8%) were able to complete all stages of the program. As for the suitability of the proposal to the school environment, it was adapted after minor adjustments to the environment. Regarding the structure of the program, an "ideal" duration of 30 minutes of interventions was observed and that the children's interest was greater in the active media group. Most parents reported being quite satisfied with the program, 90% did not feel uncomfortable or dissatisfied with the messages and calls, and 31% correctly answered the daily media record chart over the four weeks. In the analysis of child development, it was observed that there was no statistically significant difference in the pre and post intervention results.

Conclusion: The need for adjustments in the procedures used in the program was identified, which led to structural changes, such as defining the duration of sessions; withdrawal from the daily record chart and changes in the places where the intervention was carried out. In view of the data obtained, it can be concluded that the feasibility study obtained satisfactory results and the changes made allow continuing with the intervention program with interactive media in the educational environment with a longer duration.

Implications: As it is a feasibility study, the results found in the present study affirmed the importance of it for carrying out a large-scale study, to continue with the intervention program with interactive media in the educational environment with a longer period. of duration.

Keywords: Tablet, Child development, Viability study

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

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STATIC AND DYNAMIC BALANCE IN SERIOUS PATIENTS POST-COVID-19: OBSERVATIONAL STUDY

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Background: Most individuals who have recovered from COVID-19 may have long-lasting systemic impairments. Previous studies have already demonstrated balance changes both in asymptomatic athletes and in patients who manifested the moderate to severe form of COVID-19. Balance uses information from the vestibular, ocular and proprioceptive systems that act in synergy to maintain posture in different conditions, called static and dynamic balance. The simultaneous impacts on static and dynamic balance and possible relationships with muscle strength and functional tests are still unknown in the scientific literature.

Objectives: To compare static and dynamic balance in volunteers with long-term COVID-19 who had the severe form of COVID-19, compared to individuals who did not have a diagnosis of COVID-19.

Methods: Ambispective observational study of the case-control type, being the case, volunteers who presented the severe form of COVID-19, and control, with asymptomatic patients. The volunteers were evaluated after 6 months of hospital discharge, in a university research laboratory. Static balance was assessed using

baropodometry and stabilometry and dynamic balance using the MiniBest Test. Muscle strength was assessed by isometric contraction of quadriceps extension and flexion and the 1-minute sit-to-stand test (1MSTS).: Most individuals who have recovered from COVID-19 may have long-lasting systemic impairments. Previous studies have already demonstrated balance changes both in asymptomatic athletes and in patients who manifested the moderate to severe form of COVID-19. Balance uses information from the vestibular, ocular and proprioceptive systems that act in synergy to maintain posture in different conditions, called static and dynamic balance. The simultaneous impacts on static and dynamic balance and possible relationships with muscle strength and functional tests are still unknown in the scientific literature.

Results: Sample of 29 individuals, age 55 ± 12.71 , 12% female and 17% male BMI of $27.12 \pm 4.23 \text{ /m}^2$, 38% were sedentary, 62% active, 14 (48.20 %) of the case group (COVID-19). Baropodometry revealed important changes in static balance, specifically in anteroposterior displacements, while performing simple activities with eyes open (2.12 ± 2.18 vs. 1.6 ± 0.57 , $p=0.05$) and eyes closed (3.57 ± 0.98 vs. 2.12 ± 1.32 , $p=0.05$). Stabilometry revealed alterations both in the total postural stability test (TSP) (2.52 ± 2.31 vs. 1.40 ± 0.54 , $p=0.05$) and in the fall risk test (TRQ) (4.93 ± 1.97 vs. 2.65 ± 1.36 , $p=0.05$). As for dynamic balance, the Minibest test also revealed changes in the COVID group (24.57 ± 4.38 vs $27,820.57$, $p=0.05$) or? $p=0.005?$). Isometric muscle strength was lower in the COVID group only for extension (111.5 ± 39.7 vs. 152.8 ± 64 , $p=0.047$), a behavior also observed by the 1MSTS (19.14 ± 5.47 vs. 27.58 ± 8.14 , $p=0.05$).

Conclusion: Late changes in static and dynamic balance were found in patients who had the severe form of COVID-19, as well as reduced lower limb strength, functionality and increased risk of falling.

Implications: Understanding the late impacts of COVID-19 on static and dynamic balance, and muscular and functional mechanisms involved, are crucial for the development of effective rehabilitation strate.

Keywords: Covid, Postural control, Strength

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

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Ethics committee approval: (CAAE: 36641820.8.0000.8153).

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PREDICTORS OF PARTICIPATION AT HOME OF CHILDREN FROM AGE 0 TO 5 YEARS WITH AND WITHOUT DISABILITIES

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Background: Participation is currently understood as a family of constructs, which include: (1) frequency with which an activity is carried out; (2) level of involvement; (3) personal preference regarding the task; (4) competence, which is the ability to perform a certain task; and (5) self-perception, related to the recognition of one's ability to perform tasks. In children up to 5 years of age, who spend most of their time at home, participation can be affected by environmental factors, whether structural, family or socioeconomic. Participation can be measured through the Young Children's Participation and Environment Measure (YC-PEM), translated into Portuguese as Medida da Participação e do Ambiente – Crianças Pequenas, which is a questionnaire applied to parents/guardians, which assesses the frequency, involvement, desire for change, and

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.

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PREVALENCE OF NEUROMUSCULOSKELETAL DISABILITIES IN CHILDREN WITH CEREBRAL PALSY

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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 (± 19.95), being lower in GMFCS I (4.50, ± 5.98) and becoming progressively higher with the increase in the GMFCS level, reaching 22.95 (± 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, CAEE: 28540620.6.2005.809.

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

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