airway disease, deterioration of pulmonary gas exchange, and advanced age.
Implications: These associations of pulmonary variables with CPET may be clinically important and support the use of the eACP equation to improve patient outcomes.
Keywords: Cardiopulmonary exercise test, Rheumatoid arthritis, Lung function

Conflict of interest: The authors declare no conflict of interest.
Acknowledgment: FAPERJ and CNPq.
Ethics committee approval: The protocol was approved by the Research Ethics Committee of the Hospital Universitário Pedro Ernesto (CAAE 87594518.4.0000.5259) and all participants signed the consent form.

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345

EARLY DETECTION OF NEUROMOTOR DELAYS AND IMPAIRMENTS IN INFANTS AT BIOLOGICAL RISK: PREVIOUS RESULTS

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Background: A risk factor is described as a condition related to a possible negative or unfavorable outcome, which may be environmental, physical, or biological. Prematurity, a biological risk factor, is the major cause of neonatal mortality, associated with neurological sequelae, and has occurred in 1 out of 10 live births in São Carlos in 2019. Thus, access to scales with high sensitivity and predictability is pivotal to early detection (in the first four months of age) of delays or neuromotor impairments. A systematic review showed the predictive value of the General Movement Assessment (GMA) and Hammersmith Infant Neurological Examination (HINE) instruments associated with magnetic resonance imaging for early detection up to five months of age.
Objectives: To early detect motor impairments and delays during the first four months of life in infants with biological risk.
Methods: It is an observational, cross-sectional, and case-control study. Five infants from the biological risk group and five healthy full-term infants from the control group were assessed. Parents and legal guardians had to assign the informed and the image consent form. The identification form was used to characterize the personal and environmental factors. GMA and HINE instruments were performed to evaluate the neuromotor development. The data collection occurred in the home environment or at the Movement Analyses Research Lab (NENEM/UFSCar).
Results: The infants from the control group presented a mean chronological age of two months and 12 days, and the infants from the biological risk group presented a mean corrected age of one month and two days. The majority of the sample was from the female sex (90%), born at eutocyte birth (80%), with adequate weight for the gestational age at birth (90%), born from multiparous mothers (100%), and with gestational difficulties (60%). The most frequent sociodemographic characteristics were single parents (60%), both with complete high school education (80% for mothers and 70% for fathers), the mother's mean age of 30.3 years and the father's 27.2 years. Regarding the GMA results, all infants from the biological risk group were evaluated during the writhing movements period, in which 80% scored as moderately abnormal and 20% as definitely abnormal; only 20% of infants from the control group presented abnormal general movements. At HINE evaluation, 60% of the infants from the risk group presented resistance to shoulder passive movement and absence of alternate kicks in vertical suspension; 60% were unable to follow an object with their eyes; 80% had no auditory response; 100% had persistently fisted hands and 100% presented good suction. The tremors and cramped synchronized movements presence were observed in 60% of the infants from the biological risk group during the assessment throughout both instruments.
Conclusion: Infants from the biological risk group presented signs of neuromotor deficits at two months of chronological age.
Implications: Performing early detection before four months old might allow more efficient physiotherapeutic intervention.
Keywords: Early detection, Infants, Preterm

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346

AN INTERVENTION PROGRAM WITH INTERACTIVE MEDIA FOR EARLY CHILDREN: A FEASIBILITY STUDY

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Background: the insertion of digital media devices has been increasingly prevalent in children's daily lives. The literature lacks evidence about the repercussion of media on children's development, therefore, further studies are needed to monitor the use and effect of these media.
Objective: to verify the viability of an intervention program based on active interactive media for children aged between 24 and 36 months.
Methods: Feasibility study in which 32 children enrolled in the nursery II of the educational institution, aged 24 to 36 months, and their parents/guardians, were invited to participate this study. Children were randomized into two groups: 1) GMIA: children used media actively (games) and GMIP: children used media passively (viewing content). Both groups participated in the intervention for 30 minutes, twice a week, for 4 weeks. Measures: Primary outcome: feasibility of the study regarding the criteria related to the intervention program with interactive media. Secondary outcome: adherence, acceptability, structure, and adequacy of the program to the school environment; degree of satisfaction and acceptability of messages and links and preliminary child development outcomes. Before and after 4 weeks of intervention, the children were assessed for child development, receptive vocabulary, and analysis of the Daily Record Chart on the use of interactive media at home.
Results: Of the 32 eligible children, 22 children participated in the intervention, with an average of 17 children per meeting. As for acceptability, all parents (n= 32) signed the informed consent form,

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

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347

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± 4.23 /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±4.38vs 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

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348

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