

was observed that physical activity level significantly interferes with the evaluated functional capacity variables.

**Conclusion:** Individuals with SpA have worse functional capacity than healthy individuals, which may be, at least in part, a result of the lower level of physical activity.

**Implications:** From this study, it is suggested that physiotherapists and other health professionals include in their conduct the encouragement of physical activity regular practice for individuals with SpA, not only in the context of Primary Care, but also in the outpatient setting, with the aim to attenuate or prevent the deleterious effects of a sedentary lifestyle on functional capacity.

**Keywords:** Rheumatology, Fitness Trackers, Exercise Test

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

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## VISUAL ASSESSMENT WITH COMPUTATIONAL TOOL IN INFANTS EXPOSED TO GESTATIONAL COVID-19: CROSS-SECTIONAL STUDY

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**Background:** Current literature has shown that COVID-19 during pregnancy can have a negative impact on maternal-fetal clinical outcomes, including miscarriages, preterm birth, and increased mortality (MEDEIROS et al., 2021; YANG et al., 2020). More recently, an association was demonstrated between the experience of the pandemic and a higher risk of delay in the development of fine motor skills and communication in 1-year-old children (HUANG et al., 2021). In adults, multiple neuro-ophthalmological manifestations have been described in association with COVID-19: visual field defects, optic nerve dysfunctions, eye movement abnormalities and nystagmus (GOLD; GALETTA, 2021). These findings raise concerns about the risks that gestational COVID-19 may bring to healthy vision development in children. However, these visual outcomes have been little explored in this age group so far, leading to difficulty in the early diagnosis of these conditions. With this, there remains a scientific gap on the risks in the visual development of the child population exposed to the coronavirus.

**Objective:** To evaluate fixation on the horizontal visual tracking in children of mothers exposed to gestational COVID-19.

**Methods:** This is a cross-sectional study. The evaluator did a stimulus 25cm from the child's face with the optotype with a figurative face from the Visual Battery by Ricci in horizontal visual tracking. The response was filmed with a camera to capture the near-infrared spectrum, and the filming was processed by software developed for

temporal facial mapping and iris movement. Visual fixation was analyzed in the videos of horizontal visual tracking processed by the software by 2 independent researchers who classified the visual fixation as unstable (<3s) or stable (≥3s) and recorded its total time. Statistical analysis was performed using the Statistica® 13.0 software, with a description in mean±SD. Between groups, the t-test was applied with p<0.05.

**Results:** The study included 15 infants separated into 2 groups, the COVID group with 7 participants, and the Control group with 8 participants. The sample showed birth weights of 3198±398 grams, and 1824±1040 grams, and gestational age of 38±1 weeks, and 33±5 weeks, in the COVID and Control groups, respectively. Unstable visual fixation was found in 14% of the COVID Group and 38% of the Control. The total fixation time was: 9.42 seconds ±6.32 (COVID), and 4.62 seconds ±3.11 (Control); however, it was not statistically significant (p=0.07).

**Conclusion:** Gestational COVID-19 has not been shown to influence stable fixation and total visual fixation time in infants.

**Implications:** The results of the study show that the coronavirus pandemic has had a smaller impact on the visual development of infants, which can be associated with mitigation measures and vaccination of the population.

**Keywords:** Eye movements, Premature birth, Vision screening

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

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## USABILITY AND FEASIBILITY OF IMMERSIVE VIRTUAL GAMES IN THE TREATMENT OF PEOPLE WITH PARKINSON'S DISEASE

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**Background:** Parkinson's disease (DP) is a chronic, neurodegenerative, and progressive disease that affects the central nervous system, compromising motor and cognitive functions, which impact quality of life and activities of daily living. Physiotherapy has explored virtual reality games as a therapeutic modality in neurorehabilitation through exergames, which are games that require body movement. However, there is still no consensus regarding the selection of immersive virtual reality (RVI) exergames aimed at training upper limbs (MMSS), making it necessary to explore innovative and immersive approaches.

**Objectives:** This study aimed to evaluate the feasibility and usability of selected exergames in Quest 2, prioritizing cognitive and motor aspects aimed at upper limbs in individuals with DP.

**Methods:** This is a quasi-experimental longitudinal clinical trial to assess the usability and feasibility of RVI games using Quest 2 in individuals with DP. A sample of 10 people diagnosed with DP, stable in relation to dopaminergic medication, in stages I to III of the Hoehn & Yahr classification, between 40 and 85 years old, with normal or corrected visual and auditory acuity and a minimum education of 4 years of formal study. 4 games were carefully selected: FIT-XR, Fruit Ninja VR, Beat Saber and Final Soccer. The interventions took place in two sessions with an interval of 30 minutes between them.