

Quality of life was similar between groups in all studies. Unsupervised interventions were similar for all outcomes evaluated.

Conclusion: Supervised gamified exercise programs seem to increase the level of physical activity compared to usual exercises in patients with chronic diseases. However, studies with better methodological qualities and subgroup analyzes are needed.

Implications: Gamified physical exercise programs can be a good strategy to increase physical activity levels if they are supervised compared to habitual exercise programs. However, other strategies need to be implemented so that this improvement in the level of physical activity has a positive impact on the quality of life of patients with chronic non-communicable diseases.

Keywords: Gamification, Sedentary behavior, Physical activity

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

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ACUTE INFLUENCE OF MODIFIED LASER IRRADIATION OF BLOOD (ILIB) ON ANAEROBIC POWER AND SYMPATOVAGAL BALANCE IN ACTIVE ADULTS

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Background: Intravascular Laser Irradiation of Blood (ILIB) is a low-level laser technique, that has systemic effects, including activation of the antioxidant system, inhibition of the systemic inflammatory process, increased blood fluidity and hemorrheological property on the red cells. However, the use of ILIB as an ergogenic resource in sports is little studied.

Objectives: To investigate the acute influence of ILIB on muscle power and heart rate variability (HRV), in physically active individuals submitted to a submaximal effort test.

Methods: The study is a randomized controlled crossover clinical trial. Nine male participants, university students, with a mean age of 24 ± 4.52 years and practitioners of regular physical activity were evaluated. The volunteers participated in the two intervention groups (ILIB and placebo) at different times. First, an evaluation session was carried out, being identified HRV indicators and blood lactate level at rest and in response to the stress test. After seven days, the participants received a session of the experimental protocol, which was drawn. After finishing these sessions, a reassessment was performed, getting data on HRV indicators and blood lactate level at rest and in response to the exercise test. After seven days, the entire data collect was repeated, however, the participants performed the remaining experimental protocol. The results were analyzed using Two-Way ANOVA with repeated measures, complemented with the Bonferroni test. All conclusions were obtained at the 5% significance level.

Results: For the physical performance variables, the Fatigue Index showed a significant difference ($p < 0.05$) from the Post-Placebo moment (54.5 ± 13.9) in relation to the Post-ILIB (45.1 ± 9.9). Blood lactate showed a significant difference between moments (initial, post-test and after 15 min) within all groups. For HRV, in the time

domain, the indices showed a significant difference ($p < 0.05$) when comparing the moments within the interventions in relation to the initial moment. Furthermore, the RMSSD values were different between Pre-ILIB (3.54 ± 0.44) against Post-ILIB (4.22 ± 0.27); after the Wingate test, the Pre-Placebo (1.00 ± 0.31) differed from the Post-Placebo (1.77 ± 0.74). In the frequency domain, HF and LF/HF showed a significant difference ($p < 0.05$) from Post-ILIB to Pre-ILIB after 15 min.

Conclusion: The study showed a possible relationship between the acute influence of the use of ILIB on parasympathetic activity. It did not show improvement in performance in an anaerobic test, but suggested a possible improvement in the ability to withstand high-intensity stimuli. The lack of ILIB studies in sports science, as well as the study's findings, suggest that more research should be done, using different protocols with different stimuli.

Implications: The ILIB can be useful for coaches and health professionals working with athletes, helping to optimize physical recovery, making it a resource for post-training recovery.

Keywords: Photobiomodulation, Physical performance, Heart rate variability

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

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PROFILE OF WORKERS WHO USE COMPUTER TERMINALS

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Background: Nowadays, the computer allied to the use of the internet is already fundamental in the work routine. Understanding the individual, in a broad and integral way, is an ongoing need to establish strategies for the prevention and cure of occupational diseases.

Objectives: To trace the sociodemographic profile of workers who use computer terminals in the cosmetics industry.

Methods: The present research was approved by the Ethics Committee of the Faculty of Medicine of the University of Coimbra through the letter 094 CE - 2018. This is a cross-sectional study, carried out with 55 workers of both genders, older than eighteen years of age, who made use of computers in their work activities in a Cosmetics Industry located in the mid-western region of Brazil, had a workload greater than four hours a day, and agreed to participate in the research by signing the informed consent form (ICF). We excluded workers who terminated their work contract and were on vacation during the research and those who, despite having signed the ICF, decided to discontinue participation. The Sociodemographic Questionnaire was applied, which consisted of a standardized instrument created for this study.

Results: It was observed that, on average, the workers' age was 29 years old, with a body mass index (BMI) of 24. Most were male (52.7%), married (58.2%), without children (61.8%), had completed college (52.7%), worked 9 hours a day (65.5%), in good ergonomic conditions (67.3%), sat for 2 to 6 hours (54.5%), took breaks (72.7%), and had no systemic arterial hypertension (SAH) (94.5%), was not a

smoker (96.4%), nor an alcoholic (65.5%), reported stressful factors in the work environment (52.7%), used medication (65.5%), without diagnosed diseases (70.9%), could not identify the time (41.8%) and the day of the week (20%) when the pain/body discomfort appeared, without edema in the legs (89%). It was found that 38.2% of the workers slept 7 hours a night, 50.9% practiced physical activity, 81.8% had leisure activities, 96.4% had time with the family, 87.3% had domestic activities.

Conclusion: Most workers were young adults, married, without children, with a complete college education, working 9 hours a day with breaks, and 2 to 6 hours of these spent sitting, in good ergonomic conditions, but there was a stressful factor at work. They presented a normal BMI and no SAH, most of them used medication, however without diagnosed diseases, with complaints of pain/body discomfort. Most had the following lifestyle habits: they practiced physical activity, had leisure activities, had time for the family, performed domestic activities, were neither smokers nor drinkers, but slept less than 7 hours a night.

Implications: With the increase in the number of workers and the computerization of workstations, it is necessary to give visibility to the working, living, and health conditions of computer terminal users in order to direct strategies that contribute to a healthy work environment.

Keywords: Health profile, Computers, Worker health

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

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Ethics committee approval: Ethics Committee of the Faculty of Medicine of the University of Coimbra by letter 094 CE - 2018.

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PHYSIOTHERAPY INTERVENTIONS FOR DIABETIC FOOT

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Background: Diabetes mellitus (DM) is a metabolic disorder that affects the production or action of insulin. Complications (e.g., diabetic foot, characterized by infection, ulcer, and/or soft tissue destruction) may occur in different ways and severities. In more severe cases, individuals may present neurological disorders and peripheral artery disease in the lower limbs. In this sense, physiotherapy becomes important for prevention and treatment, given the number of individuals who do not reach adequate healing.

Objective: To perform a literature search to identify the main physiotherapy interventions for the diabetic foot.

Methods: This narrative study was conducted in November 2022 in PubMed, Scientific Electronic Library Online (SciELO), Physiotherapy Evidence Database (PEDro), and Cochrane Library databases using the Boolean operator AND and the following descriptors: diabetic foot, physiotherapy, and treatment. We included full-text articles published in Portuguese and English that conducted randomized clinical trials or systematic reviews; the studies should have been published and indexed in the databases mentioned above in the last 14 years. Exclusion criteria comprised theoretical reviews, monographs, dissertations, theses, and studies that included animals or did not have available abstracts. The search resulted in 151 articles (PubMed = 121, Cochrane Library = 27, PeDro = 2, and SciELO = 1); 17

articles were selected after reading titles and abstracts, and 4 were selected after full-text reading.

Results: Several physiotherapy interventions were found, such as lower limb exercises to heal wounds in patients with type 2 DM and physical resources physical resources associated with phototherapy through light-emitting diodes. The safety and efficacy of photobio-modulation at home for treating diabetic foot ulcers and topical ozone therapy were also observed as adjuvant treatments.

Conclusion: We analyzed physiotherapy interventions with different protocols for diabetic foot: guidance, active exercises, isolated movements for lower limbs, and physical resources (e.g., photobio-modulation, laser therapy, and ozone therapy). These interventions also improved the blood supply to lower limbs, which may have prevented wounds, increased the chance and speed of healing, and avoided amputations.

Implications: Physiotherapy interventions are fundamental to prevent and treat complications, improving the quality of life of patients with diabetic foot ulcers and reinserting them in society.

Keywords: Physiotherapy, Diabetic foot, Treatment

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ATYPICAL GUILLAIN-BARRÉ SYNDROME ASSOCIATED WITH COVID-19 IN A CHILD: A CASE REPORT

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Background: The SARS-CoV-2 virus (severe acute respiratory syndrome coronavirus 2) became known worldwide as the cause of the disease COVID-19. COVID-19 can compromise the central nervous system, causing neurological disorders such as Guillain-Barré syndrome (GBS). GBS is triggered by viral and bacterial agents, defined as polyradiculoneuropathy of acute/subacute onset, with sensory manifestations, muscle weakness, temporary quadriparesis and even severe respiratory failure with respiratory and diaphragmatic muscle weakness.

Objective: To report the case of a child diagnosed with COVID-19 and GBS and describe its clinical and functional evolution.

Methods: Case report study, carried out from the collection of data from the medical records of a child admitted to the back-up Pediatric Intensive Care Unit for COVID-19 in a Brazilian hospital.

Results: A previously healthy 12-year-old boy started flu-like symptoms, followed by diarrhea and after 7 days he developed weakness in his hands and walking difficulty. Admitted with positive serology for COVID-19 with SARS-CoV-2 virus detected in the viral panel of CSF and nasal swab, laboratory and imaging tests without alterations. He was oriented, eupneic, had adequate vital signs, isochoric and photoreactive pupils, absence of nystagmus and alterations in facial sensitivity, preserved facial mimicry, tetrastigmatic alteration, areflexia in lower limbs, hyporeflexia in upper limbs, absence of signs of pyramidal release, preserved tactile and painful sensitivity, uncharacteristic cerebrospinal fluid. Physical therapy diagnosis: eutonic neuropathic functional kinetic deficiency, preserved