maintaining heel contact with the ground. An inclinometer was positioned 15 cm below the tibial tuberosity to record measurements. The test was performed three times with 30-second intervals, and the average dorsiflexion of both limbs was used for analysis. Jump performance was assessed using a bilateral countermovement jump, measured with a Baiobit® inertial sensor placed at the S1-S2 vertebral level. Three jumps were performed with 30-second intervals, and the highest recorded value was used for analysis. Data normality was verified using the Kolmogorov-Smirnov test, and the correlation between variables was analyzed using Pearson's correlation coefficient. Statistical analysis was performed using SPSS 20.7.
Results: The study included 51 athletes (age: 20.7 ± 0.4 years; body mass: 78.1 ± 1.94 kg; height: 1.8 ± 0.1 m; BMI: 23.5 ± 0.4 kg/m^2; basketball experience: 5.9 ± 0.3 years). A strong, significant positive correlation was observed between dorsiflexion and jump height ($r = 0.81$; $P < 0.001$).
Conclusion: Ankle mobility positively influences jump height in basketball athletes.
Implications: These findings suggest that physiotherapists working with basketball players should assess ankle mobility and incorporate strategies to enhance dorsiflexion in training and injury prevention programs.
Keywords: Physical Functional Performance, Ankle Joint, Correlation Measures

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EFFECT OF ISCHEMIC PRECONDITIONING ON THE SUBJECTIVE PERCEPTION OF EFFORT DURING VELOCITY-BASED TRAINING IN BASKETBALL ATHLETES

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Background: Velocity-based training (VBT) is a precise approach that, by measuring movement velocity, allows for the precise prescription and monitoring of training volume and intensity. In this context, ischemic preconditioning (IPC) stands out as a non-invasive ergogenic method associated with improved sports performance. Studies indicate that IPC can influence neuromuscular and physiological variables, affecting the rating of perceived exertion (RPE). Given the role of RPE in regulating training load and physiological response, investigating its relationship with IPC in the context of VBT may provide valuable insights for optimizing sports performance.
Objectives: To analyze the acute effect of IPC on the RPE of basketball athletes during a training session using VBT.
Methods: This is an experimental, cross-over-designed study. The sample consisted of 24 junior basketball athletes (18.2 ± 0.4 years) randomly subjected to four experimental conditions with a washout period of 48—72 hours. IPC was applied bilaterally to the lower limbs (four cycles of 5 minutes of total occlusion alternated with four cycles of 5 minutes of reperfusion) with varying rest periods, all followed by Smith machine squats (3 sets to failure at 50% 1RM): 1) CR15: 15-minute rest; 2) CR30: 30-minute rest; 3) CR45: 45-minute rest; 4) CC: IPC session (20 mmHg) without rest time. The Borg CR-10 rating of perceived exertion (RPE) scale was used to assess athletes' perceived effort. Data were analyzed using the Statistical Package for the Social Sciences (SPSS — 26.0), with a significance level of $P = 0.05$.
Results: The Friedman test identified significant differences in RPE between conditions and overtime ($P < 0.001$). Post hoc analysis with Bonferroni correction revealed significant differences between the first set of CR15 vs. the third set of CR45 ($P = 0.035$) and the third set of CR45 vs. the first set of CR30 ($P = 0.013$). Compared to the control condition, differences were also found between the first and third sets ($P = 0.044$) and between the first set of CC vs. the third set of CR45 ($P = 0.001$).
Conclusion: The CR45 condition elicited significantly higher perceived exertion compared to CC, CR15, and CR30. Additionally, in the CC condition, a progressive increase in RPE was observed throughout the experimental session, highlighting the significant impact of IPC on effort perception regulation during resistance training.
Implications: The rest period after IPC may directly influence RPE, affecting training load regulation and effort tolerance. These findings suggest that adjusting post-IPC recovery time can be a valuable strategy to optimize sports performance, prevent excessive fatigue, and enhance physiological adaptations, benefiting athletes and coaches in velocity-based training prescription.
Keywords: Velocity-based training, Ischemic preconditioning, Basketball athletes

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DIAGNOSIS AND RISK FACTORS OF INJURIES IN WHEELCHAIR FENCING PARATHLETES DURING A NATIONAL CHAMPIONSHIP

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Background: Wheelchair fencing is a sport for para-athletes with physical disabilities. To minimize the impacts of disability, para-athletes are divided into three functional categories: A (highest functionality), B and C (lowest functionality). The sport emerged as a rehabilitation process but has evolved into a high-performance sport. With this evolution, para-athletes have begun to face a greater training load, which can increase the incidence of injuries. In this context, accurate identification of diagnoses and analysis of risk factors are essential for the implementation of preventive strategies.
Objectives: To identify the diagnosis and risk factors of sports injuries in wheelchair fencing para-athletes during a national championship.
Methods: This is a prospective, descriptive, cross-sectional study conducted with male and female wheelchair fencing para-athletes during the Brazilian Para-fencing Championship. The Sports Injury

Protocol in Paralympic Sports (PLEEP) questionnaire was used to collect information on injury diagnoses, which were obtained from the medical department during the championship. A quantitative analysis of the data was performed using descriptive statistics.
Results: Fifty wheelchair fencing athletes participated in this study, 56% male and 44% female, with a mean age of 30.92 (±11.14) years. Regarding the functional categories of the athletes, 62% were in category A and 36% in category B. During the championship, 16 injuries were recorded, 62.5% of which were in the upper limbs. The diagnoses of injuries included effort-induced muscle disorder (43.75%), contusion (25%), blister (18.75%), and abrasion (12.5%). Regarding the risk factors related to the diagnoses, it was observed that 25% of the effort-induced disorders were associated with repetitive movements with the armed arm, and 18.75% with movements specific to the modality. For bruises, 12.5% ??were related to blows with the tip or blade of the combat weapon and 12.5% ??to the transfer of the wheelchair. Regarding blisters, 12.5% were associated with the use of protective equipment (gloves) and 6.25% to the use of the combat wheelchair (holding the support bar during combat). Abrasions were related to blows with the tip or blade of the combat weapon (12.5%).
Conclusion: The results of this study indicate that the upper limbs are the most affected region by injuries among wheelchair fencing para-athletes, with exercise-induced disorder being the most frequent diagnosis. Risk factors such as repetitive and modality-specific movements were frequently associated with these injuries.
Implications: The identification of the types of injuries and their risk factors contributes to the identification of modality-specific prevention demands, providing greater safety in the practice of sports by para-athletes.
Keywords: Athlete Injuries, Epidemiology, Wheelchair Fencing

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ASSOCIATION BETWEEN SLEEP QUALITY AND THE UPPER LIMB ROTATION TEST PERFORMANCE IN SWIMMERS

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Background: Sleep plays an important role in physiological and psychological well-being. Poor sleep quality can impair competitive performance through, increase injury rates and reduced training efficiency. On the other hand, high-quality sleep before a competition can enhance performance and optimize results. Despite these findings, the literature has yet to explore whether sleep quality is related to performance in tests such as the Upper Limb Rotation Test (ULRT).
Objectives: To analyze the association between sleep quality and physical performance in the ULRT among swimmers.
Methods: This was a cross-sectional study. This study was approved by Ethics Research Committee. The sample included swimmers of both sexes, aged between 12 and 60 years, with more than one year of experience in the sport, training at least three times per week, and actively participating in competitions. Sleep quality was assessed using the Brazilian version of the Pittsburgh Sleep Quality Index (PSQI), a valid and reliable 10-item instrument. Upper limb physical performance was evaluated using the ULRT. The test was performed with athletes in an elbow plank position, with the shoulder, epicondyle, greater trochanter, and lateral malleolus touching a wall. They executed trunk rotations combined with external shoulder rotation at 90° of abduction, aiming to touch a mat on the wall as quickly as possible within 15 seconds. Three attempts were performed, with a 45-second rest between trials, the number of repetitions was recorded as the score, and the mean of three trials was considered for analysis. Data analysis was conducted using Jamovi software. Univariate linear regression was performed to assess the association between sleep quality and the Upper Limb Rotation Test (ULRT).
Results: A total of 53 swimmers were included, with an average of 7.0 ± 6.36 years of sports practice and a mean age of 30.2 ± 14.4 years, of whom 23 (45.1%) were female. Performance in the ULRT showed no significant association with sleep quality ($p > 0.05$). Additionally, sleep quality explained less than 21% of the performance variation for both the dominant and non-dominant limbs.
Conclusion: The findings suggested that sleep quality, assessed with the PSQI, wes not associated with ULRT performance in swimmers. Future studies should consider different approaches to analyzing sleep quality, as well as incorporating physiological and psychological factors, to better understand the relationship between sleep and functional performance.
Implications: The sleep quality, assessed with PSQI, did not have a significant impact on ULRT performance.
Keywords: Physical performance tests, functional tests, sleep disorders

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INFLUENCE OF CATEGORY AND BIOLOGICAL SEX ON THE LEVEL OF PAIN CATASTROPHIZING IN SWIMMING ATHLETES

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Background: Pain catastrophizing, an exaggerated tendency to anticipate and amplify painful sensations, is a critical factor in the evaluation and treatment of athletes. The Pain Catastrophizing Scale (PCS) is a self-assessment questionnaire, consisting of 13 statements that assess thoughts and feelings related to pain. In the context of swimming, a high-performance sport, understanding the differences in pain catastrophizing between age and sex categories can provide information about each individual's perception of pain. This study aims to explore how these factors influence the level of sleep catastrophizing in athletes.
Objectives: To characterize the level of catastrophizing in swimming athletes and analyze the association of category and sex with the level of pain catastrophizing in swimming athletes.