in the last month (VAS), subjective function (AKPS), quality of life (SF-36), and maximum isometric strength of knee extensors and flexors (isokinetic dynamometer) at 60° of knee flexion. A multivariate analysis of covariance (ANCOVA) was used to compare the groups, controlling for the influence of sex on the dependent variables.
Results: The traumatic PFP group had worse pain levels (95%CI=.65; 18.92) and lower levels of subjective function (95%CI=-12.01; -4.17) compared to the insidious PFP group. The groups with traumatic and insidious PFP had lower subjective function compared to the asymptomatic groups with (95%CI=-27.65; -19.62 | -19.84; -11.23) and without trauma (95%CI=-26. 37; -15.52 | -18.49; -7.21), respectively. The traumatic PFP group had lower knee extensor strength compared to the asymptomatic group with trauma (95%CI=-67.26; -3.02) and without trauma (95%CI=-52.76; -3.59) in the knee, while there was a trend towards the insidious PFP group (95%CI=-51.25; .67). There were no differences between groups for duration of symptoms, quality of life, and isometric knee flexor strength.
Conclusion: Individuals with traumatic PFP have a worse perception of their clinical condition (e.g., worse level of pain and subjective function) compared to individuals with insidious PFP, and lower strength of the knee extensors when compared to asymptomatic individuals with and without a history of trauma to the knee. In general, these findings may indicate a cumulative effect of knee trauma and PFP, which could affect the individual's perception of their condition.
Implications: It is possible that individuals with traumatic PFP could benefit from specialized education interventions regarding the perception of their condition, whereas there does not seem to be necessary to give greater emphasis to knee strengthening for this subgroup.
Keywords: Anterior knee pain, Traumatic injury, Weakness

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ISOKINETIC EVALUATION OF MUSCULAR STRENGTH AFTER DIFFERENT ISCHEMIC PRECONDITIONING PRESSURES: A PLACEBO-CONTROLLED RANDOMIZED CLINICAL TRIAL

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Background: Ischemic preconditioning (IPC) is characterized as a procedure consisting of intermittent applications of cycles of non-lethal and short-duration vascular occlusion in a target limb, followed by reperfusion through inflation and deflation of a pressure cuff. Because it is a method of easy administration, usability, non-invasive, and low cost, it currently presents as an attractive ergogenic resource that has been used for performance enhancement. Despite its notoriety in the literature in recent years, there are gaps regarding the most efficient protocol to be used to obtain significant results, especially for increasing muscular strength.
Objectives: to compare the effect of different IPC occlusion pressures on muscular strength through maximum voluntary isometric contraction (MVIC).
Methods: eighty healthy men (22.10±2.86 years) were randomly divided into four groups: IPC using total occlusion pressure (TOP) [IPC-TOP], IPC with 40% more than TOP (IPC-40%), placebo (10 mmHg), and control. The IPC protocol used consisted of four cycles of ischemia and reperfusion of five minutes each, totaling 40 minutes, while the placebo underwent an intervention like IPC but with four cycles of five minutes of placebo occlusion (10mmHg) alternated with four cycles of five minutes of reperfusion (0 mmHg). In the control group, individuals remained at rest for 40 minutes. Initially, TOP evaluation was performed, followed by baseline evaluation of MVIC on an isokinetic dynamometer. Next, participants underwent the previously randomized intervention protocol. Finally, MVIC evaluation was performed again. Descriptive statistical methods and analysis of variance for repeated measures were used with a significance level of 5%.
Results: all analyzed groups showed a significant difference in the final evaluation compared to the baseline ($p<0.05$), where the levels of muscular strength decreased. Regarding the magnitude of the losses, it was observed that the IPC-40% group (Δ = -14.01Nm) presented the lowest reduction, which was statistically significant compared to the control, placebo, and IPC-TOP groups (Δ = -29.46Nm; -32.71Nm and -26.44Nm, respectively).
Conclusion: IPC with 40% more than the TOP was able to attenuate the reduction of muscular strength evaluated by the MVIC.
Implications: the present study brings important results providing an alternative technique that can be used in training and competition routines to minimize the loss of muscular strength.
Keywords: Vascular occlusion, Muscular strength, Functional physical performance

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EFFECTIVENESS OF IMPLEMENTATION STRATEGIES TO REDUCE THE PROPORTION OF LOW-COST CARE FOR LOW-BACK PAIN MANAGEMENT: A SYSTEMATIC REVIEW WITH META-ANALYSIS

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Background: Low back pain (LBP) is the most common occupational disorder in North America. In the period from 2012 to 2016, indirect costs were US$2.2 billion for LBP in Brazil, accounting for approximately 67% of medical expenses. Previously published studies lacked major interventions, requiring further research to improve the

evidence. Findings from this review can raise awareness among clinicians and promote significant savings if they follow clinical guidelines.
Objectives: To investigate the effectiveness of implementation strategies to reduce the proportion of low-value care and increase the proportion of high-value care in the management of low back pain.
Methods: This review was registered to the to the Open Science Framework (OSF) (https://osf.io/7jfpr/). Searches were performed in the following electronic databases: MEDLINE, Embase, CINAHL and Cochrane Library. Two independent reviewers performed study selection, data extraction and risk of bias assessment. Clinical trials investigating the effect of evidence-in-practice implementation strategies on reducing low-value care and promoting low-value care were included. Studies including adults with non-specific LBP were considered eligible. The primary outcome of this systematic review was outcomes related to the practices of health professionals. However, the primary outcomes were determined considering two recent clinical care standards. Meta-analyses were calculated using random effect models, the risk of bias by the Cochrane Risk of Bias Tool and the overall quality of evidence was assessed using the Grading of Recommendations, Assessment, Development and Evaluations (GRADE).
Results: Thirty-two articles were included. Interventions focusing on implementing clinical guidelines were not effective in referral to specialists (5 studies, n=6223; RR=0.88; 95% CI: 0.62, 1.25), referral to physical therapists (3 studies, n=7937; RR=1.42 ; 95% CI: 0.74, 2.72) or for prescribing non-opioid drugs (6 studies, n=7297; RR = 0.75, 95% CI: 0.52, 1.10) when compared to the control group. However, the implementation of clinical guidelines was effective in reducing the number of imaging requests (12 studies, n= 44,689; RR = 0.83, 95% CI: 0.70, 0.99), opioid prescription (5 studies, n=6681; RR = 0.60, 95% CI: 0.44, 0.80), and promote active approaches (exercise, counseling, etc.) (6 studies, n=2553; RR = 1.36, 95% CI: 1.04, 1.76). Confidence of all meta-analyses was low, as most studies were assessed at high risk of bias because they were not randomized clinical trials and because of serious inconsistency ($I^2 > 50\%$).
Conclusion: Although clinical guidelines are important to improve the quality of care for people with LBP, it is not always effective in clinical practice. The quality of evidence found was low. Better quality studies are still needed to confirm these findings.
Implications: Clinical guidelines are important tools that are effective in reducing imaging, prescribing opioids and promoting active approaches and were ineffective for referrals and prescribing non-opioids.
Keywords: Low back Pain, Practice Guideline, Lumbago, Systematic Review

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COMPARISON BETWEEN PHYSICAL PERFORMANCE TESTS IN CROSSFIT PRACTITIONERS WITH AND WITHOUT SUBACROMIAL PAIN SYNDROME: A CROSS-SECTIONAL STUDY

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Background: Subacromial Pain Syndrome (SPS) is a prevalent musculoskeletal shoulder disorder. Shoulder pain in overhead athletes is often associated with sport-specific demands and changes in strength, flexibility, and posture at the shoulder and along the upper limb. Crossfit is a popular sport with a high prevalence of musculoskeletal disorders, including in the shoulder. Therefore, identifying performance and physical impairments in the shoulder of Crossfit practitioners with SPS may contribute to a better understanding of the high prevalence of this disorder.
Objectives: This study aimed to compare the shoulder's physical performance and clinical measures between Crossfit practitioners with and without SPS.
Methods: An observational cross-sectional study was conducted in CrossFit boxes in Rio de Janeiro, Brazil. Twenty participants with SPS and 23 participants without SPS were included. Participants performed upper limb physical performance tests (Closed Kinetic Chain Upper Extremity Stability Test, Seated Medicine Ball Throw Test, Upper Quarter Y-Balance Test). Range of motion and isometric muscle strength were also investigated.

Self-reported pain, disability. Possible differences between groups were investigated using the independent sample t-test (two tailed).
Results: There was no statistically significant difference between groups for upper limb physical performance tests, shoulder range of motion and isometric strength. The result of the SPADI in the SDSA group was 30.7% (23.62) for pain, 16.46% (19.24) for disability, and a total score of 21.92% (20.22).
Conclusion: Crossfit practitioners with and without SPS presented similar upper limb physical performance.
Implications: Subacromial pain syndrome may not influence performance on physical tests, strength level, and upper quadrant range of motion in CrossFit practitioners. Including crossfit-specific movements in the physical assessment can complement the physical evaluation.
Keywords: Shoulder, Pain, Athletes

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EVIDENCE-BASED PRACTICE OF PHYSICAL THERAPISTS WHO WORK IN DEAF SPORTS - PILOT STUDY

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Background: Deaf sport involves the practice of sports performed by deaf athletes, contributing to the development of self-esteem, quality of life and greater social participation of members of the deaf community. Thus, physical therapy performance plays a fundamental role in maintaining and improving the functional capacity of this population. Evidence-Based Practice (EBP) is a process that integrates the best scientific evidence, the physical therapist's clinical experience and the patient's preferences, aiming to offer an adequate and efficient service and treatment, guaranteeing quality of care. Thus, EBP should be used by professionals in clinical