

Conclusion: Women with PFP show a decline in performance in functional tests when compared to asymptomatic women, which can be detected through clinical tests.

Implications: Functional tests should be incorporated into the assessment and monitoring of rehabilitation programs for women with patellofemoral pain, allowing for the identification of the level of impairment and the progression of functional capacity throughout the treatment. Furthermore, it is recommended that rehabilitation include exercises that simulate activities of daily living, aiming to improve functionality and the quality of life of these patients.

Keywords: Women, Functionality, Muscle Strength

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MANUAL THERAPY IN THE BODYBUILDING: INTEGRATIVE REVIEW

Náthila Lorrana Silva Cardoso^a,

Cristiane de Fátima Pimenta da Costa^b, Smayk Barbosa Sousa^a

^a *Programa de Pós-graduação em Reabilitação e Desempenho Funcional (PPGREAB), Universidade do Estado do Pará (UEPA), Belém, PA, Brazil*

^b *Programa de Residência Multiprofissional em Oncologia/Cuidados Paliativos, Universidade do Estado do Pará (UEPA), Belém, PA, Brazil*

Background: Physiotherapy has several approaches and instruments that act in rehabilitation and pain relief. Among the resources to be used is manual therapy. Its use in sports is well known, including in bodybuilding, where it demonstrates benefits both in injury prevention and muscle recovery.

Objectives: To analyze the use of manual therapy in bodybuilding.

Methods: This is an integrative review, in which the search strategy was carried out according to the PICO strategy, being (P) Bodybuilders, (I) Manual therapy, (C) Control or other intervention, (O) Health and functional performance, and with the use of descriptors present in the Health Sciences Descriptors (DeCS/MeSH) and Medical Subject Headings (MeSH), in addition to complementary terms due to the absence of specific descriptors for this audience. Then, the search was carried out on the Pubmed, Cochrane, Web of Science, Scopus and Virtual Health Library (VHL) platforms, with no restrictions regarding time and language. The inclusion criteria were articles with a specific sample of bodybuilders and using at least one manual therapy technique. In parallel, the exclusion criteria were review studies, books, course completion papers, theses and monographs. After the bibliographic survey, the data were directed to the Rayyan software, in which duplicates were excluded, title and abstract screening and full-text screening were performed. The data from the selected articles were displayed in an Excel spreadsheet for analysis of the results.

Results: A total of 239 studies were identified, of which 6 duplicates were removed. Then, 3 articles were selected in the screening by title and abstract and in the end only 2 articles were included. Among the included studies, one quasi-experimental study and one randomized clinical trial were obtained, which analyzed different outcomes. Regarding the sample, there were different approaches, with one study focused on bodybuilders with chronic low back pain (n = 48) and another on male bodybuilders (n = 30). Among the manual therapy techniques used were massage (n = 2) and dry needling (n = 1), performed for 30 minutes. Among the tests, scales and assessment instruments, the following were observed: visual pain scale, visual analogue scale, modified Schober test, portable

goniometer, mechanical scale, blood sample by venipuncture, agility test, vertical jump displacement and maximum isometric torque test. It was possible to observe that dry needling demonstrated benefits mainly in relation to pain, while massage obtained advantages in relation to range of motion and in optimizing the athletes' performance.

Conclusion: Manual therapy can be an effective resource in the health and performance of bodybuilders. However, it should be emphasized that there are few studies available with this audience, and it is essential to carry out new research that investigates more techniques in different situations and outcomes.

Implications: Identifying the effectiveness of manual therapy in bodybuilding is essential for the practice of sports physiotherapists, who can use low-cost techniques capable of benefiting athletes in their daily lives and performance.

Keywords: Resistance Training, Physical Functional Performance, Musculoskeletal Manipulations

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ACUTE EFFECTS OF MANUAL MYOFASCIAL RELEASE ALONE OR IN COMBINATION WITH INSTRUMENT OR PERCUSSION DEVICE ON DELAYED ONSET MUSCLE SORENESS

Julia de Almeida Santos, Ana Julya Santana Miranda,

Alef Douglas Oliveira Alves, Valdeci Carlos Dionísio,

Wanessa Silva De Oliveira, Ana Paula Magalhães Resende

Physiotherapy Department, Universidade Federal de Uberlândia (UFU), Uberlândia, MG, Brazil

Background: Amateur athletes frequently experience delayed-onset muscle soreness (DOMS), impacting training and daily activities. Myofascial release, a massage technique for DOMS management, can be performed manually or with instruments. Recently, percussion devices, such as massage guns, have gained popularity. While several studies have examined foam rollers for self-myofascial release, no research has compared physiotherapist-administered manual myofascial release with instrument-assisted or percussion-based techniques for DOMS treatment.

Objective: To evaluate the effects of a single session of manual myofascial release alone or combined with instrument-assisted soft tissue mobilization or a percussion device massager on DOMS in amateur athletes.

Methods: Randomized controlled trial. Amateur athletes were classified as "very active" according to the International Physical Activity Questionnaire (IPAQ), and pain reporting associated with exercise practice was included. Exclusion criteria included athletes with pain due to a previously diagnosed musculoskeletal injury and those unable to read and understand the questionnaire. Athletes were randomized into one of three groups: Manual Myofascial Release (MMR), Manual + Instrument-Assisted Soft Tissue Mobilization (MMR + IASTM), or Manual + Percussion Device Massager (MMR + PDM). An assistant researcher conducted the randomization process. Assessments were carried out by a trained evaluator blinded to group allocation. Initially, participants identified the muscle group experiencing pain. The evaluator then palpated the affected muscle group and asked the athlete to quantify their pain using the Visual Analog Scale (VAS) from 0 to 10. Following this assessment, a trained physiotherapist administered the assigned intervention. Each