

session lasted 40 minutes. The session was evenly divided for interventions combining manual therapy with another approach, with 20 minutes allocated to manual therapy and 20 minutes to the instrument/device intervention. Immediately after the session, the same evaluator reassessed pain levels using the VAS. Twenty-four hours later, the research team contacted participants, instructing them to palpate the painful area and self-report their pain score on the VAS. To assess normality, the Shapiro-Wilk test was applied. For group comparisons, repeated measures ANOVA and one-way ANOVA were used.

Results: A total of 159 athletes completed the protocol: 73 in the MMR group, 47 in the MMR+IASTM group, and 39 in the MMR+PDM group. There was a loss of 24-hour follow-up data in the last two groups due to non-responsiveness to the 24-hour evaluation. No significant differences were found between the three groups in baseline VAS scores: 4.63 for MMR, 4.79 for MMR+IASTM, and 5.59 for MMR+PDM ($p=0.099$). Immediately after the intervention, VAS scores were 2.30 for MMR, 2.34 for MMR+IASTM, and 5.28 for MMR+PDM. At the 24-hour follow-up, VAS scores were 2.38 for MMR, 2.82 for MMR+IASTM, and 4.44 for MMR+PDM. When comparing groups, no significant difference was found between MMR and MMR+IASTM ($p=0.714$), while both showed superior results compared to MMR+PDM ($p < 0.001$ for both comparisons).

Conclusion: MMR alone or in combination with IASTM yielded better outcomes than MMR combined with PDM in treating DOMS.

Implications: A percussion device should not be combined with MMR for DOMS management.

Keywords: myofascial release, myofascial pain, athlete

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CONCURRENT VALIDITY OF MY JUMP LAB APP IN VERTICAL JUMP PERFORMANCE IN INDIVIDUALS AFTER ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION

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Background: Performance in vertical jump tests, such as jump height and the reactive strength index (RSI), are important metrics for clinicians to monitor during the rehabilitation of individuals following anterior cruciate ligament reconstruction (ACLR). Although force platforms are considered the gold standard for this type of measurement, their limited accessibility and high cost make them unsuitable for clinical settings. In this context, mobile applications, such as the My Jump Lab app, have emerged as potential alternative tools for jump assessment in clinical environments.

Objectives: To verify the concurrent validity of the My Jump Lab app compared to a force platform (gold standard) in assessing vertical jump performance in individuals who have undergone anterior cruciate ligament reconstruction.

Methods: A concurrent validity study following the Guidelines for Reporting Reliability and Agreement Studies (GRRAS). Individuals of both sexes who had undergone ACLR and were eligible to perform jump tests between the sixth and twenty-fourth postoperative

month were recruited. Participants were instructed to complete an assessment form with clinical and anthropometric characteristics and then underwent a five-minute warm-up on a stationary bicycle. They performed two vertical jumps: single-leg vertical jump (SLVJ) and single-leg drop jump (SLDJ). A researcher not involved in the assessment randomized the limbs (operated and non-operated) to determine which limb the participant would start the tests with. The evaluation of jumps using the My Jump Lab app was conducted simultaneously with the force platform assessment (Bertec® Model FP4060-08-1000) by two blinded assessors, each responsible for analyzing the data from one instrument. The smartphone (iPhone 11) was positioned 1.5 meters from the platform with its lenses close to the ground. The jump height in SLVJ and SLDJ and the RSI in SLDJ were collected. Pearson correlation was used to analyze concurrent validity, and Bland-Altman plots were used to assess the agreement between the force platform and the My Jump Lab app.

Results: Eighty participants with ACLR were included in the evaluation. A total of 320 jumps were analyzed using the app. The jump height in SLVJ and SLDJ and the RSI in SLDJ assessed by the My Jump Lab app showed a very strong correlation with the jump height in SLVJ ($r=0.982$, $p < 0.001$) and SLDJ ($r=0.977$, $p < 0.001$) and the RSI in SLDJ ($r=0.972$, $p < 0.001$) assessed by the force platform. The agreement analysis using Bland-Altman plots did not reveal any systematic bias in the results obtained by either method.

Conclusion: The My Jump Lab app is a valid tool for assessing vertical jump performance in individuals who have undergone anterior cruciate ligament reconstruction.

Implications: Due to the high cost of gold-standard instruments, such as the force platform, mobile applications like My Jump Lab offer a more economical and accessible alternative for use in clinical practice.

Keywords: Anterior Cruciate Ligament Reconstruction, Functional Performance, Smartphone

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CORRELATION BETWEEN DORSIFLEXION AND JUMP PERFORMANCE IN BASKETBALL ATHLETES

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Background: Basketball requires high physical demand, including running, directional changes, and frequent jumping. Jump performance is a key determinant of athletic success, given the sport's specific demands. The jump phases include takeoff, flight, and landing, with the ankle joint playing a crucial role in energy transfer and impact absorption.

Objectives: To evaluate the correlation between ankle dorsiflexion and jump height in basketball athletes.

Methods: This cross-sectional observational study included male basketball players, excluding those with self-reported lower limb pain or injury. Ankle dorsiflexion was assessed using the Lunge Test, in which athletes performed maximal knee flexion while