00218 The Effects of Motor Imagery on Pain and Range of Motion in Musculoskeletal Disorders: A Systematic Review With Meta-analysis

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Aims: In recent years, there has been an increase in the use of motor imagery in the rehabilitation of musculoskeletal pain conditions. Across the literature, most reviews have yet to consider Laterality Judgement Task training (Implicit motor imagery) as a form of motor imagery method. This review aimed to compare the effects of motor imagery and minimal intervention on pain and range of motion in musculoskeletal pain.

Methodology: Searches of eight major electronic databases were conducted. Data for pain, range of motion and function were extracted. Meta-analyses (where possible) with either a fixedor random- effect(s) model, standardized mean differences (SMDs), and tests of heterogeneity were performed.

Result: Eight clinical controlled trials were identified and included in the meta-analyses. When compared to minimal intervention, motor imagery provided superior pain relief (pooled SMD -0.96, 95% confidence interval [CI] -1.82 to -0.1, P=0.04), and greater improvement in range of motion (pooled SMD 1.96, 95% CI 0.08 to 3.84, P<0.05) in chronic musculoskeletal pain disorders.

Conclusion: These suggest that motor imagery may be effective for pain relief and improvement in range of motion amongst chronic musculoskeletal pain conditions, although this conclusion is based on limited evidence.