GNYACSM Original Research Abstract

The Effects of Myofascial Release on Improving Lumbar Mobility and Flexibility. A Randomized Control Trial

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ABSTRACT

Myofascial release (MFR) is a manual therapy technique defined as a low load, long duration-stretch to the myofascial complex. This technique is intended to restore optimal length in fascial tissue, alleviate associated discomfort, and improve functional movement. **PURPOSE**: The purpose of this randomized control trial (RCT) was to examine the immediate effects of MFR on improving lumbar mobility and flexibility. **METHODS**: This RCT recruited current students at New York Institute of Technology, 18 years or older, and in overall good health. Participants were randomized to either an experimental treatment group (EG) or a sham treatment group (CG). Baseline outcome measurements including lumbar flexion (LF), lumbar side-bending (LSB), hamstring flexibility using the active knee extension test (AKE) and the modified sit-reach-test (MSR), and a functional lift test (FLT), were taken prior to and immediately following the intervention. The EG received myofascial release to the lumbar paraspinal muscles while the CG received nontherapeutic hand contact to the same lumbar area. A two-way mixed analysis of variance (ANOVA) was used to compare between-groups and within-group differences for the main effect of time and the interaction effect of treatment. Significant between-groups and within-group differences are presented as the mean difference at a 95% confidence interval. Differences were considered statistically significant at $p<0.05$. **RESULTS**: In total, 40 participants met the inclusion criteria and all completed this RCT. Participant characteristics were similar at baseline. Between-groups comparisons revealed no statistically significant improvements for LF ($p=0.79$), LSB (L/R) ($p=0.47/0.24$), AKE (L/R) ($p=0.52/0.13$), and MSR ($p=0.82$). Within-group differences revealed statistically significant improvements for both groups. The EG showed improvements in LSB (R) ($p=0.02$), AKE (L) ($p<0.001$), AKE (R) ($p=0.004$), and MSR ($p=0.001$). The CG showed improvements in LF ($p=0.03$), LSB (L) ($p=0.09$), LSB (R) ($p=0.03$), AKE (L) ($p=0.004$), AKE (R) ($p<0.001$), and MSR ($p<0.001$). **CONCLUSION**: The findings of this RCT suggest MFR provided no greater benefit to improving lumbar mobility and flexibility in young, healthy adults when compared to non-therapeutic light touch.

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