Improvements in range of motion with passive stretching and myofascial release at the hamstrings

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Abstract

Introduction: Range of motion (ROM) is the specific movement of a joint—measured in degrees. It is important to know techniques to apply that will give people the best ROM. With myofascial release (MFR), the object is to fix muscular restrictions while ROM is restored. Re-establishing ROM after pathology is essential for activities of daily living or athletics. Studies have discovered that MFR interventions were effective in reducing hamstring tightness versus no treatment on hamstrings. Purpose: The aim of this experiment is to examine the effects that MFR has on range of motion at the knee.

METHODS

18 participants. 9 males & 9 females divided into 3 groups. The electronic protractor was the tool of measurement because of its reproducibility (validity) and reliability.

• Group 1 received passive stretching as treatment for three treatments of 30 seconds per session
• Group 2 received passive stretching and self-release treatment. Self-release was done for two sets of 45 seconds.

• Group 3 received passive stretching and clinician release. Muscle play was used for 45 seconds, following 45 seconds of muscle ironing.

The patient was instructed to lay supine on a yoga mat, a chair was then placed under the flexed involved leg, and the patient was instructed to extend their knee towards the ceiling. 3 pre test and post test measures were taken.

RESULTS

• Repeated measures group results indicated no significant difference.
• ANOVA results indicated no effect for Condition, t(df) = (2), p > .05, F = .502, p > .05. There was an approaching significance for the Post Test Average on the Left Leg between all groups with a 0.073 significance in Post Test 3.

DISCUSSION & CONCLUSION

The variables measured within the clinician release group, were not individualized to patient’s needs, and as a result we believe this could have hindered significance. Underestimation in the effect of lengthy passive stretching in all groups. Based on the results found, we fail to reject the null hypotheses.

• Our results indicate that myofascial release, clinician or self-release, did not improve range of motion over passive stretching.

REFERENCES