

Abstract

Background: The range of motion (ROM) of synovial joints is required for movement, although it can be limited by joint and muscle factors. Shorten hamstrings (Biceps femoris, Semitendinosus, and Semimembranosus) reduce hip flexion below 80°, lowering performance and increasing injury risk. Stretching therapies including static, PNF (Proprioceptive Neuromuscular Facilitation), and MET (Muscle Energy Technique) improve flexibility. MET utilizes post-isometric relaxation, whereas Hold Relax (a PNF technique) incorporates isometric contraction and stretching. While both are successful, there is no information on their immediate impacts. This study looks at the short-term advantages to help physiotherapists manage hamstring strain more effectively.

Objectives: The study aimed to determine the effectiveness of 'Post Facilitation Stretching (PFS)' and 'Hold Relax (HR)' techniques on hamstring Shortness, as well as to compare the effectiveness of these two treatments among college students.

Method: 60 participants with stiff hamstring muscles were randomly assigned to two groups of 30 each. Group-A experienced post-facilitation stretching techniques. Group-B: Underwent the Hold-relax method. After two weeks, the outcome was examined in terms of knee extension range of motion using the Universal Goniometer, and the findings were compared.

Result: An independent t-test was employed to examine the mean significant difference between continuous variables. A paired t-test was employed to determine the statistical difference between pre-test and post-test scores, with a p-value of <0.001 . The statistical analysis of the data indicated that both groups improved significantly in all metrics when compared to each other. However, in compared to the other groups, the Post Facilitation Stretch group improved more.

Conclusion: Following two weeks of instruction, both groups demonstrated significant improvement. Group-A, which underwent Post Facilitation Stretch, achieved higher and more effective outcomes. However, Post Facilitation Stretch is more successful in increasing hamstring flexibility than the Hold-Relax approach in participants.

Keywords: Hamstring Shortness (HS), Post Facilitation Stretch (PFS), Hold-Relax (HR).

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