Dry Needling for Patients with Neck Pain: A Randomized Clinical Trial

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Neck pain is a costly and common problem. Current treatments are not adequately effective for many patients who continue to experience recurrent pain. Therefore, new treatment strategies should be investigated to reduce the disability and high costs associated with neck pain. Dry needling is a technique in which a fine needle is used to penetrate the skin, subcutaneous tissues, and muscle with the intent to mechanically disrupt tissue without the use of an anesthetic. Dry needling is emerging as a treatment modality that is widely used clinically to address a variety of musculoskeletal conditions. It is not currently known if dry needling when added to manual therapy and exercise results in greater improvements in function and pain compared to manual therapy and exercise alone. Seventy-six eligible consecutive patients referred to physical therapy with mechanical neck pain will be randomized to receive 1) dry needling, manual therapy, and exercise or 2) sham dry needling, manual therapy and exercise. Participants will receive 7 treatments over 4 weeks. The primary outcome will be change in disability as measured by the Neck Disability Index. Secondary outcome measures include patient reported pain and patient perceived improvement. Questionnaires will be completed at 4 weeks, 6 months, and 12-months. We hypothesize that patients who receive the real dry needling will have a better outcome than those who receive the sham dry needling, and we will determine this using appropriate statistics. The results from this study will help to determine if the addition of dry needling for the management of mechanical neck pain provides improved outcomes when used in a combined treatment approach as is commonly practiced clinically.