

# Effect of Dry Needling with Core Strengthening in Chronic Low Back Pain in Postpartum Women

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## ABSTRACT

**Introduction:** Chronic Low Back Pain (CLBP) is a disabling condition that is common among postpartum women after the caesarean delivery and is caused by hormonal fluctuations, weakening of core muscles, the presence of myofascial trigger points, and surgical compromises of the anterior abdominal wall. Although the clinical impact of it is high, the best approaches to rehabilitation based on direct myofascial intervention with structured exercise have still not been fully explored.

**Materials and Methods:** The study was a randomised controlled trial conducted on 50 postpartum women (25-35 years old) who had more than three months of CLBP after a caesarean surgery. Participants were grouped randomly into Group 1, where Dry Needling (DN) would be administered in the form of twice weekly, and a six-week Core Strengthening Exercise (CSE) programme (DN+CSE, n=25), and Group 2 (CSE only, n=25), where the

participants only received the exercise programme. The Visual Analogue Scale (VAS), Oswestry Disability Index (ODI), and Core Muscle Strength and Stability Test (CMSST) were used to measure outcomes at baseline and six weeks.

**Results:** There were significant intra-group improvements ( $p<0.001$ ) in the two groups. The comparisons six weeks later showed a markedly better result in Group 1 on all the measures: VAS reduction 69.4% vs 47.3, ODI reduction 61.1 vs 37.4, CMSST improvement 154.3 vs 73.9.

**Conclusion:** CSE alone or CSE coupled with DN show significantly better results than either CSE alone or DN alone in postpartum women with CLBP following caesarean delivery, with large clinical effect sizes in all the outcome domains.

**Keywords:** Caesarean delivery, Core muscles, Myofascial trigger point.

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