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Assessing the Efficacy of Magnetotherapy in Individuals with Adhesive Capsulitis: A Study Protocol

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Introduction: Shoulder adhesive capsulitis is a debilitating condition characterised by pain, impaired function and significant restrictions in the shoulder joint range of motion in multiple directions. Physiotherapeutic interventions, such as exercise therapy, manual therapy, electrotherapeutic modalities, are commonly employed in its management. Magnetotherapy, utilising pulsed electromagnetic fields, has demonstrated potential therapeutic benefits in various musculoskeletal conditions by modulating inflammation, promoting tissue repair, reducing pain. However, its specific efficacy in addressing shoulder adhesive capsulitis remains relatively under-explored.

Need for this study: This study will provide high-quality evidence on the potential benefits of integrating magnetotherapy into the management of shoulder adhesive capsulitis.

Aim: This study protocol aims to outline the methodological design to be employed with the objective of investigating the therapeutic efficacy of magnetotherapy on pain, range of motion, and functions in individuals with shoulder adhesive capsulitis.

Materials and Methods: The proposed study will employ a single-blinded, randomised controlled trial study design. Participants of both genders, aged 35-50 years, meeting the inclusion criteria for shoulder adhesive capsulitis in the freezing and frozen stage, will be randomly assigned to one of two groups: an intervention group receiving both magnetotherapy and conventional physiotherapy and a control group receiving conventional physiotherapy alone using computer-generated randomisation method with sequentially numbered opaque sealed envelopes to conceal the randomisation sequence. Both groups will undergo the assigned physiotherapy regimen twice weekly for two weeks. The sample size will be determined based on the outcomes of the pilot study with 12 participants, 6 in each group, to ensure adequate statistical power. Outcome assessments, including pain intensity by the Visual Analogue Scale, shoulder range of motion by universal goniometer, and functional disability by Shoulder Pain And Disability Index, will be conducted prior to the intervention and immediately following the completion of the intervention period.

Keywords: Exercise therapy, Magnetic field therapy, Pain management, Physical therapy modalities, Shoulder pain.