

Efficacy of a Multicomponent Exercise Programme for People With Chronic Musculoskeletal Pain – Preliminary Results

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Purpose: Exercise is a core component of chronic musculoskeletal (CMS) pain management and is widely supported by clinical guidelines. Despite this, many individuals with CMS pain struggle to maintain physical activity (PA) in daily life. This study explored the feasibility and preliminary effects of a supervised, individualised, patient-centred multicomponent exercise programme on disability, physical capacity, and engagement in PA.

Methods: A 16-session exercise programme was delivered, consisting of warm-up, functional exercises, and breath-centred yoga with relaxation. Exercises were graded throughout the sessions. Assessments were conducted at the first and last session using the Oswestry Disability Index (ODI), the ATEMPT questionnaire (to assess exercise adherence), and the Senior Fitness Test (SFT) battery. Given the small sample size and lack of control group, findings are reported descriptively, with focus on clinical relevance.

Results: Forty-nine participants (mean age: 53.4 ± 8.6 years) attended an average of 12.5 sessions, reflecting a high adherence rate (78%). The mean ODI score decreased from 39.4 ± 17.5 to 34.8 ± 17.6 (mean change: 4.6 points). While statistically significant ($p = .002$), the change did not reach the commonly accepted threshold for clinical relevance (6–10 points). The 30-second chair-stand test showed improvement (mean increase: 1.6 repetitions; $p < .001$), suggesting a gain in lower limb strength. ATEMPT scores also improved (mean change: 5.6 points; $p < .001$), though without a control group, these changes should be interpreted cautiously. Importantly, over 80% of participants completed at least 75% of the sessions, indicating strong engagement.

Conclusion: Although the functional and self-reported outcomes showed modest improvements, the results fall short of demonstrating clinically meaningful change in disability and must be interpreted within the limitations of the study design. Nonetheless, the high adherence and acceptability of the programme suggest its potential as a feasible intervention to support active living in people with CMS pain. Future research should include a control group, longer follow-up, and larger sample size to assess efficacy and sustainability more robustly.

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