

CONFERENCE ABSTRACT

Functional exercise after total hip replacement; The FEATHER project.

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Background: At present, there is an insufficient evidence base to evaluate the effectiveness of physiotherapy following total hip replacement (THR). This study evaluated the effectiveness of a physiotherapy-supervised functional exercise programme between 12 and 18 weeks following THR. These time-points coincide with increased functional demand in patients.

Design: Adequately powered assessor-blinded randomised controlled trial.

Setting: Patients were recruited at a pre-operative assessment clinic and randomised following surgery.

Participants: Sixty-three subjects were randomised to either the usual care group (control, n = 31) or the functional exercise + usual care group (n = 32).

Interventions: Patients in the functional exercise group attended a physiotherapy-supervised functional exercise class twice weekly from 12 to 18 weeks following THR. Patients in the control group followed the usual care protocol with no exercise intervention.

Main outcome measurement: The main outcome measurement tool was the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) questionnaire, and the secondary outcomes included walking speed, hip abduction dynamometry, Short Form 12 physical and mental health scores, and visual analogue pain scale score.

Results: At 18 weeks post surgery, WOMAC function and walking speed improved significantly more in the functional exercise group [mean difference -4.0, 95% confidence interval (CI) -7.0 to 1.0 (P < 0.01); mean difference 21.9 m, 95% CI 0.60 to 43.3 (P < 0.04)] than the control group, but there was no significant difference in hip abductor strength.

Conclusion: This study demonstrated that patients who undertake a physiotherapy-led functional exercise programme between 12 and 18 weeks after THR may gain significant functional improvement compared with patients receiving usual care.

Keywords: rehabilitation; total hip replacement; function
