A COMPARISON OF EXERCISE FREQUENCY ON STRENGTH, PHYSICAL FUNCTIONING, PAIN AND QUALITY OF LIFE POST DISCHARGE FROM A GERIATRIC DAY REHABILITATION CENTRE IN A CONSECUTIVE SAMPLE OF OLDER ADULTS.

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Background/Aim: It is recommended that older adults should exercise two or more times a week, however these levels of exercise frequency are difficult to achieve in this population. To date, research investigating the efficacy of once a week exercise for older adults have reported conflicting results. The current study investigated whether once a week exercise is as effective as twice a week for maintaining outcomes post rehabilitation.

Methods: Randomised, controlled trial of community-dwelling older adults referred to a geriatric Day Rehabilitation Centre (DRC). Inclusion criteria: 60+ years, cognitively intact, no diagnosed neurological disorder and DRC referral for spinal/lower limb musculoskeletal impairment, post-surgery, reduced functional mobility or falls. At DRC discharge, participants were randomly allocated to one of three groups: once a week exercise (1x week), twice a week exercise (2x week) or control group (no intervention). The intervention groups attended the DRC gymnasium for either one or two visits per week, for a 12 week individually prescribed, progressive exercise program. Participants were assessed pre and post intervention by a blinded assessor, which included lower limb strength, physical function, self-reported pain and quality of life. Data were analysed with an intention-to-treat approach, using repeated measures Analysis of Variance with Dunnett’s post hoc analysis to detect differences between groups.

Results: Thirty six participants were allocated to the 1x week group, 34 to the 2x week group and 36 to the control group. Adherence was good (75% attendance 1x week, 72% 2x week). Post intervention, the 2x week group reported significantly higher quality of life (p=0.039) compared to the control group, with no difference between the two intervention groups. The 2x week group also reported significantly better scores on two domains of the pain questionnaire compared to the control group, (pain frequency p=0.004 and emotional reaction to pain p=0.035) with no significant difference between the two intervention groups. There were no significant differences between groups for strength or physical function. A post intervention survey found once a week was the preferred exercise frequency for 66.7% of participants. A post hoc confounding variable was identified; 51.5% of the control group reported self-selected exercise, with 30.3% attending gym once a week.

Discussion: The finding of no significant differences between the two intervention groups gives support to the effectiveness of once a week exercise in maintaining outcomes post rehabilitation. Given the level of contamination in the control group, it is likely that the study was underpowered to detect statistical significance between the 1x week and control groups. Further research is warranted given the 1x week intervention clearly costs less, had higher compliance and was nominated as the preferred exercise frequency by the majority of participants.

Keywords: Ageing, Frequency, Exercise

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