How physical exercise can benefit individuals living with dementia in nursing homes

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HOW PHYSICAL EXERCISE CAN BENEFIT INDIVIDUALS LIVING WITH DEMENTIA IN NURSING HOMES

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Aim
• Evaluate the effects of an evidence-based physical exercise intervention on agitation levels and physical function of individuals living with dementia in nursing homes.

Method
• Single-blinded, randomised controlled trial
• Conducted by a Physical Therapist
• 12 week program
• Statistical analysis: One-way ANOVA, paired sample t-test, Kruskal-Wallis test, Wilcoxon signed-ranks test and Chi Square

Sample and Setting
• Individuals living with dementia (n=60)
• Nursing homes in South Australia (n=2)

Individuals randomly allocated
• IG1: Physical exercise intervention for 45min. once a week plus ‘usual care’
• IG2: Physical intervention for 15min. three times a week plus ‘usual care’
• CG: ‘usual care’ only control group

Physical Exercise Activities
• Seated and standing exercises
• Small groups (max. 5)
• Targeted strength, balance, endurance and flexibility

Outcome Measures
• Cohen-Mansfield Agitation Inventory
• 6m Walk Test
• (Modified) Functional Reach Test
• Timed Static Pedalling
• 5 Times Sit to Stand Test
• Timed Up and Go Test

Statistically Significant Results

Conclusion and Clinical Implication
Physical exercise that target strength, balance, endurance and flexibility significantly reduced falls and agitation and improved physical function.
Positive trends were found in favour of both intervention groups across all but one outcome measures (modified functional reach). Due to the small sample size some improvements were not statistically significant.
IG1 and IG2 had high compliance rates (>92%) and showed improvement in all outcome measures: slightly more in favour of IG1 (5 vs. 4), which suggests parameters for IG1 were more ideal for this population.
The CMAI showed improvement in all groups, which was greatest in the control group. This could be due to the small sample size or limitations associated with poor use of the observational outcome measures.
If incorporated into clinical practice this physical exercise intervention would increase the translation of evidence into the aged care practice and improve the care of individuals living with dementia.