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A NOVEL EXERCISE INITIATIVE FOR OLDER ADULTS TO REDUCE FALLS RISK AND IMPROVE PHYSICAL FUNCTION

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Statement of the Problem: Preventing falls, improving muscle strength, balance and physical function among older adults are key public health priorities. To this end, a unique purpose-built exercise park was designed to provide a fun but physically challenging environment to support exercise for older adults in a community setting. Thus, this study aimed to investigate the feasibility, effectiveness and effects of an exercise intervention using a novel purpose-built exercise park in improving senior's balance, physical function and quality of life. **Methodology & Theoretical Orientation:** This study was a randomised controlled trial with pre and post intervention design (baseline and at 18 weeks after participation commencement with a falls record over a 12-month period). Independent community dwelling adults aged between 60 and 90 years old were randomised to either an eighteen-week exercise park intervention group (EPIG) or a control group (CG). Primary outcome measure was the Balance Outcome Measure for Elder Rehabilitation (BOOMER). Secondary outcomes included measures of balance, strength and function as well as quality of life and fear of falling. Multivariate analysis of covariance was used to assess differences between groups and groups over time.

Findings: Twenty-seven participants from EPIG completed the 18-week intervention (87%) with attendance of 79.6%. No major adverse events were reported. Significant improvement was observed for the EPIG group on single leg stance ($p=0.02$, 95%CI -8.35 to -.549), knee strength ($p<0.01$, -29.14 to -5.86), two-minute walk test ($p=0.02$, -19.13 to -.859) and timed sit to stand ($p=0.03$, -2.26 to -.143), although there was no difference in the BOOMER battery test ($p=0.46$, -.354 to .830). **Conclusions and Significance:** The 18-week exercise park program improved physical function in older people and had high adherence and participation rate. The exercise park program has been shown to be safe and therefore might enhance exercise participation in exercise programs for older adults in the community.

STRATEGIC MEMORY ALZHEIMERS REHABILITATION TRAINING (SMART) MEMORY PROGRAM FOR AMNESTIC MILD COGNITIVE IMPAIRMENT (AMCI): REPORTING THE RESULTS OF A RANDOMIZED CLINICAL TRIAL

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The combined effects of the aging of the population (caused by the shift of the baby boomer generation into dementia) and significant increase in life expectancy has combined to put dementia into the range of our largest medical, if not societal problems. In the state of Arizona, there is a projected 44-72% increase in dementia. Research has supported the use of cognitive intervention exercises to reduce early-stage dementia. Valenzuela and Sachdev (2009), in a literature review of 22 studies (involving approximately almost 30,000 individuals), found an overall risk reduction of 46% in individuals that were found to engage in a high level of regular cognitive activity. Perhaps more importantly, they found a dose-dependent relationship between cognitive exercise and reduction of dementia, which had not been found previously. The SMART Memory Program (DenBoer, 2008) is a cognitive intervention designed to promote the reduction of early-stage dementia. Results of this program have shown significant promise (e.g., DenBoer, 2013), and the present researchers are currently engaging in multiple research studies. The program is effective via the use of new and novel cognitive exercises. The researchers have yet to conduct a randomized clinical trial (RCT), which is considered the gold-standard of research in this area. This presentation focuses on the results of a joint study with UCLA in which the researchers examined the effects of the SMART Brain U Online program on individuals with amnesic MCI (aMCI).