

Conclusions: An acute exercise bout in previously sedentary, elderly War Veterans resulted in increased positive well-being, however a bout containing multiple exercise modes is psychologically demanding. AEPs may best serve their clients by commencing with a simple program to minimise psychological distress and fatigue, which may negatively impact adherence.

Vibration training as an alternative exercise for War Veterans presenting with chronic conditions

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Introduction: Vietnam War Veterans reporting with chronic disease are at risk of low exercise adherence due to fatigue and inadequate clinical supervision. Vibration training may be an effective exercise mode for this population. The aim of this study is to compare the effect of traditional and vibration exercise on the health and function of Vietnam War Veterans.

Methods: Vietnam War Veterans (n=32) volunteered and provided informed consent as per Institutional Ethics before completing 12-wk, 3xwk of 1) lower-body vibration, upper-body resistance and stretching (20-30 mins); 2) lower-body vibration, upper-body resistance, aerobic exercise and stretching (40-60 mins); or 3) full-body resistance, aerobic exercise and stretching (40-60 mins). Health and functional ability were assessed pre and post-intervention. A repeated measures ANOVA with post-hoc Tukey HSD was used to identify differences in health and function between groups and across time.

Results: 82% of participants completed the program. Significant overall time effect improvements ($p < 0.001$) were evident for: 6 min walk test, static squat, timed up and go, sit and reach, leg and back strength, resting heart rate and blood pressure and girths following intervention. While not statistically significant, group 2 demonstrated the largest improvement in functional performance (9-20% improvement).

Conclusions: High adherence was attributed to social interaction and personalised supervision therefore AEPs should focus on providing a socially engaging exercise environment for this population. In light of the clinically significant greater functional improvements achieved by group 2, vibration-training appears to be a viable addition to traditional exercise programs in previously sedentary, elderly War Veterans.

Comparison of common stroke rates used during 1000 m outrigger canoeing.

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Introduction: Outrigger sprint racing involves common paddling techniques such as the Hawaiian (H) and Tahitian (T) styles that are characterised by stroke rates as low as 42 strokes·min⁻¹ or as high as 70 strokes·min⁻¹, respectively. Additionally, Australian outrigger canoeists adopt a stroke rate in between these extreme styles (55-65 strokes·min⁻¹). The aim of the study was to determine which outrigger style and stroke rate resulted in the fastest 1000m performance while moderating physiological demand.

Methods: Following ethics approval, seventeen outrigger canoeists provided informed consent and completed a 1000m outrigger ergometer time trial using their self-selected (SS), H (≤ 55 strokes·min⁻¹) and T (≥ 65 strokes·min⁻¹) stroke rates. Performance time and average and/or peak heart rate (HR), oxygen consumption (VO₂), ventilation (V_E), respiratory rate (RR), blood lactate concentration (LA) and rating of perceived exertion (RPE) were recorded for all trials. Repeated measures ANOVAs and Tukey HSD post-hoc tests were used to compare data across trials and 250m splits ($p < 0.05$).

Results: Stroke rates were significantly different between outrigger styles (SS 61±6, H 54±1, T 70±4 strokes·min⁻¹) with the SS trial resulting in a significantly slower time than the H and T trials (371±38 vs. 358±30 and 357±28 s). The H trial resulted in a significantly lower average VO₂ and RR, and significantly lower peak HR, V_E, RR, LA and RPE than the SS and T trials.

Conclusions: Outrigger canoeists should use a stroke rate of ≤55 strokes·min⁻¹ to elicit a fast 1000m performance with less physiological demand compared to faster stroke rates.

Clinical Pilates for Engaging the Ageing.

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Introduction: Pilates exercise is claimed to provide substantial benefits to the individual including improved core stability, body awareness and control. Such benefits could reduce the risk of falls in an elderly population for which both the risk and associated complications due to falling are high[1]. To date only one uncontrolled study has investigated whether Pilates exercises in an elderly cohort can positively influence falls risk factors in this high risk population[2]. This study compared 5-weeks of Pilates exercise with usual activity on balance, and functional measures in community dwelling 60-85 year old (yo) men and women.

Methods: Thirty-two 60-85 yo men and women were baseline tested for medial-lateral sway range, timed up-and-go, four-square test, and knee extension and ankle dorsi-flexion strength. They were then randomly assigned into either a Pilates training group (2 x per week) or usual activity group for five weeks before being re-tested. Testing procedures were approved by the Research Ethics Committee with written informed consent obtained from all participants. Results were analysed using repeated measures ANOVA and paired t-tests.

Results: After Pilates training there was a significant improvement over usual activity for medial-lateral sway distance when standing on a foam pad with eyes open (9%) and closed (14%), four-square time (7%) and up-and-go time (9%). There was a significant time*group interaction for the timed up-and-go and for left (p=0.003) and right (p=0.004) dorsi-flexion strength.

Conclusions: Pilates training in 60-85 yo men and women provides significant improvement in measures of balance and function.

The Effects of Clinical Pilates on Markers of Metabolic, Cardiovascular and Psychological Health

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Introduction: Pilates has become a popular exercise modality touted to provide many health benefits. However, there is little research to confirm these claimed benefits in an older population for which Pilates may be of greatest benefit [1]. This study aims to compare five weeks of Pilates exercise with usual activity on blood glucose, cholesterol, physical activity levels, perceptions of quality of life, falls confidence and outcome expectation in community dwelling 60-85 year old (yo) men and women.

Methods: Thirty-two 60-85 yo men and women were recruited into either Pilates training (2 x per week) or usual activity for five weeks. Dependant variables of blood glucose and cholesterol level, the Community Healthy Activities Model Program for Seniors (CHAMPS), Falls Confidence, outcome expectation, and the Short Form36 Quality of Life (SF36) inventories were measured at baseline and follow-up. Testing procedures were approved by the Research Ethics Committee with written informed consent obtained from all participants. Results were compared using paired t-test and repeated measures ANOVA