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Effects of a Six-Week Walking Intervention on Cardiometabolic Risk Factors and Mental Well Being

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Less than half of the U.S. adults meet exercise recommendations for cardiorespiratory exercise. Exercise has been shown to positively impact cardiometabolic risk factors (CRF) and mental well-being in adults. However, there is currently limited research on the impacts of a walking intervention on CRF and mental wellbeing. **PURPOSE:** The aim of this study was to investigate the effects of six-week moderate-intensity walking intervention on CRF and mental wellbeing. **METHODS:** 10 subjects (24.78 ± 3.0 yrs) participated in a six-week walking intervention, at individual moderate heart rate intensities, five times a week for 30 minutes. Three lab sessions were completed to test body mass (BM), Body Fat Percentage (BF%), Body Mass Index (BMI), Waist Circumference (WC), Hip Circumference (HC), Systolic Blood Pressure (SBP), Diastolic Blood Pressure (DBP), Resting Heart Rate (RHR), Total Cholesterol (TC), Triglycerides (TG), High Density Lipoprotein (HDL), Low-Density Lipoprotein (LDL), and Blood Glucose (BG). Additionally, the Generalized Anxiety Disorder (GAD), Perceived Stress Scale (PSS), Dresden Body Image Questionnaire (DBIQ), and General Self-Efficacy Scale (GSE) were used to assess mental wellbeing. Data is presented as mean \pm SD. **RESULTS:** There were no significant changes in BM (-0.12 ± 1.0 kg, $p=.83$), BF% ($-0.46 \pm 3.5\%$, $p=.98$), BMI (0.01 ± 0.4 kg/m², $p=.86$), WC (-3.66 ± 4.5 cm, $p=.75$), and HC (-1.97 ± 4.5 cm, $p=.75$) over the six weeks. There were no significant changes in SBP (-2.88 ± 13.0 mmHg, $p=.99$), DBP (1.38 ± 8.9 mmHg, $p=.53$), and RHR (4.75 ± 10.2 bpm, $p=.51$) throughout the duration of the intervention. No significant changes were observed over the six weeks for TC (13.37 ± 39.8 mg/l, $p=.71$), TG (-9.38 ± 44.0 mg/dl, $p=.17$), HDL (1.13 ± 16.9 mg/dl, $p=.99$), LDL (9.63 ± 36.6 mg/dl, $p=.53$), and BG (-3.1 ± 11.8 mg/dL, $p=.19$). There were no significant findings for GAD (-0.75 ± 3.4 , $p=.95$), PSS (-0.88 ± 9.8 , $p=.90$), DBIQ (15.5 ± 23.5 , $p=.49$), and GSE (0.50 ± 2.6 , $p=.94$). **CONCLUSION:** None of the measured variables significantly impacted CRF or mental wellbeing. However, these results should not undermine the positive benefits found in other studies regarding the benefits of low-moderate intensity exercise on CRF and mental wellbeing.

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