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Group studio cycling is an effective intervention to improve cardio-metabolic health in overweight sedentary individuals

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INTRODUCTION High intensity interval training (HIIT) improves health markers in groups at risk of cardiovascular and metabolic disease. The majority of evidence comes from laboratory studies with fixed intensity intervals and one to one supervision. Studio cycling, incorporating both aerobic and high intensity exercise, offers a platform for the implementation of HIIT within the wider community. The aim of the present investigation was to test the efficacy of group based studio cycling at improving markers of cardio-metabolic health in overweight individuals. **METHODS** Eight, overweight, sedentary (86.1 ± 10.6 kg; 27.1 ± 4.7 ml.kg.min⁻¹; <1.5 hr.wk⁻¹) but otherwise healthy volunteers completed 8 weeks of supervised studio cycling lasting 50 minutes 3 times per week. Heart rate was monitored as a guide to exercise intensity achieved. Participants underwent evaluation for blood pressure, maximal oxygen uptake ($\dot{V}O_2$ max), body composition, and blood lipid profile before and after the intervention. **RESULTS** Adherence to training was >95%. $\dot{V}O_2$ max improved by 11.8% ($p < 0.0001$) and MAP reduced by 6.5% ($p < 0.05$). Fat free mass index increased by 4.4% ($p < 0.05$) and waist:hip by 1.2% ($p < 0.05$). Cholesterol was reduced by 13% ($p < 0.05$). **DISCUSSION** These data show that group exercise is effective at improving cardio-metabolic health in overweight individuals and improves markers of disease risk with comparable benefits as reported in many laboratory HIIT studies. Studio cycling improves fat free mass and as such may help improve function of daily tasks due to an increase in lean mass. Coupled with a high adherence rate, studio cycling offers an effective intervention to improve cardiovascular health in physically inactive cohorts that can be implemented on a community wide scale.

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