Senior Cybercycling With a Virtual Team: Behavioral and Physiological Outcomes

ABSTRACT

PURPOSE: We examined the effects of videogame-enhanced recumbent exercise cycling on behavioral and physiological measures in older adults. **METHODS**: Seventy-four participants (mean±SD: age, yrs = 78.6±9; Weight, kg = 73.6±15; Height, cm = 161.2 ±8.1; Percent Body fat = 41.1±7.3; Lean mass, kg = 41.3±6.6) enrolled from 9 different independent living facilities in the first and second year of this study. Participants were randomly assigned to either a control (CO; n=38) in which they rode cybercycle viewing only biofeedback information (HR, kcal, etc.), or were assigned to progress through four 3-week conditions riding the cybercycle (CC; n=26): biofeedback only, 3-D terrain rides (option to race past performances), option to race others, and riding as part of a league. Baseline and 3 month changes were analyzed for the following variables; body weight, fat mass, abdominal obesity (ROI analysis with iDXA); plasma insulin, leptin, adiponectin, IGF-1