An internet-delivered exercise intervention for workplace health promotion in overweight sedentary employees: a randomized trial.

OBJECTIVE: To evaluate the effect of structured vs. non-structured internet-delivered exercise recommendations on aerobic exercise capacity and cardiovascular risk profile in overweight sedentary employees.

METHODS: 140 employees of an automobile company (11% female, median age 48 years (range 25-60), BMI 29.0 kg/m(2) (25.0-34.8)) were randomized in a 3:2 ratio to an intervention group receiving structured exercise schedules or a control group choosing workouts individually via an interactive website. The 12-week intervention took place in Munich, Germany, during summer 2008. Main outcome measure was performance at the lactate anaerobic threshold (P(AT)/kg) during ergometry.

RESULTS: 77 participants completed the study. The intervention group (n=50) improved significantly in P(AT)/kg ((mean (SD)) 1.68 (0.31) vs. 1.81 (0.33) W/kg; p=0.002), VO(2)peak (3.21 (0.63) vs. 3.35 (0.74) L/min; p=0.04), and waist circumference (100.5 (7.9) vs. 98.0 (7.8) cm; p=0.001). The control group (n=27) improved significantly in P(AT)/kg (1.59 (0.38) vs. 1.80 (0.49); p<0.001) and waist circumference (101.9 (8.7) vs. 98.3 (8.5) cm; p<0.001), but not in VO(2)peak. No significant between group differences in these outcome measures were noted. CONCLUSION: Structured, internet-delivered exercise
recommendations are not superior to internet-delivered non-structured exercise recommendations in a workplace setting. Both lifestyle intervention strategies are, however, limited by high dropout rates.