

The Effects of a 15-Week Physical Activity Class on Health-Related Physical Fitness

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PURPOSE: The present study examined the effects of a 15-week physical activity course on components of Health-Related Physical Fitness (HRPF) in students enrolled in Kinesiology Physical Activity Program (KPAP) classes. Students ($n=1,221$, average age 22.3 years) enrolled in KPAP classes were evaluated pre/post. **METHODS:** Maximal oxygen consumption (VO_{2MAX}) was estimated from the YMCA cycle ergometer protocol. Flexibility was assessed with a sit and reach box. Muscle strength was measured with the CPAFLA combined hand-grip test. Muscular endurance was assessed with a 1-minute timed push-up test and the partial curl-up test. Paired t-tests were performed on pre/post data.

RESULTS:

Table 1. Significant Changes for Fitness Walking

Test	Gender	Pre	Post
VO_{2max}^{\dagger}	Female	35 ml/kg/min	39 ml/kg/min
Body fat % ‡	Female	26 %	25 %
BMI $^{\diamond}$	Female	24 kg/m ²	24 kg/m ²
Dual hand grip †	Female	42kg	46kg
Timed Push-up †	Female	24 reps	24 reps
Sit and Reach †	Female	20.0 in	20.0 in
VO_{2max}^{\diamond}	Male	38 ml/kg/min	40 ml/kg/min
Abdominal Girth $^{\diamond}$	Male	34in	33in
Dual hand grip †	Male	66kg	76kg
Timed Push-Up †	Male	32 reps	36 reps
Sit and Reach †	Male	17 in	18 in

Legend: $\dagger p < 0.001$, $\ddagger p < 0.01$, $\diamond p < 0.05$

Students in fitness walking experienced the most improvement across both male and female physical fitness components, including improvements in cardiorespiratory fitness, body composition, muscle strength, muscle endurance and flexibility. **CONCLUSION:** KPAP classes significantly improve the cardiorespiratory fitness, flexibility, muscle endurance and strength, and body composition components of HRPF. The largest improvement was seen in fitness walking students.