

The effects of a field-based high intensity sprint interval training protocol on measures of obesity in sedentary young adults

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High intensity sprint interval training (SIT) proposes an effective and feasible exercise alternative for sedentary individuals. Reductions in body weight alongside improvements in body composition are apparent following SIT (Macpherson, 2011). Laboratory-based protocols involving specialist procedures are typically utilized to administer SIT (Whyte, Gill and Cathcart, 2010). Thus the aim of this study was to determine whether similar benefits accrue from a field-based adaptation of the typical SIT protocols. This study used a two group experimental design. After ethical approval, a sample of eight sedentary men (n=3) and women (n=5) (age: 21.9 ± 4.8 years; height: 168.3 ± 10.6 cm; weight: 69.6 ± 17.7 kg) were randomly assigned to four weeks of SIT (n=4) or a control (n=4) group. Both groups reported to the laboratory at baseline and post-intervention for measurement of anthropometric, body composition and fasting blood variables relating to obesity. Following baseline the SIT group completed four exercise sessions consisting of 4-6 repeated 30s bouts of sprint running interspersed by 4:30min recovery periods. The control group were requested to maintain sedentary behaviour. It was hypothesised that SIT will induce beneficial changes to the variables measured, whilst no change is expected within the control group. Data will be analysed using a two way mixed-design ANOVA to identify any effects and interactions (between factors) on the dependent variables it statistical significance set at $P < 0.05$. If interactions are apparent a brief field-based SIT protocol could be considered as a practical and suitable intervention for advocating to this age group for public health and obesity prevention.

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