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ACUTE EFFECTS OF HIGH INTENSITY CIRCUIT TRAINING USING BODY WEIGHT ON BODY COMPOSITION INDICES IN SEDENTARY COLLEGIATE FEMALES

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ABSTRACT

In recent years, sedentary behaviour has grown into a global concern due to its adverse effects on overall health and well-being. High-intensity circuit training (HICT) has gained popularity to enhance health and fitness. Despite the recent popularity of this training method, however, research on the effects of high-intensity circuit training using body weight (HICTBW) on body composition in sedentary young adults remains limited. Therefore, this study aimed to explore the impact of 4-weeks HICTBW program on body composition in sedentary collegiate females. Twenty participants were randomly assigned to either a training group, which underwent multiple bodyweight exercises for four weeks, or a control group with no training. The intensity of the training increased progressively over the weeks. In week 1, 60%maxHR with 1 full circuit were conducted. In week 2 and 3, participants performed 2 full circuits at the intensity of 66%maxHR. Finally in week 4, the participants performed 3 full circuits at 68%maxHR. Body composition, including body fat percentage, fat mass, muscle mass, waist-to-hip ratio, and body mass index (BMI), was assessed before and after the intervention. The results showed that there were no significant differences in all variables between the pre-and post-training intervention ($p > 0.05$). Although no significant differences in the studied variables were observed between pre- and post-training, there were slight positive changes in all measured parameters. Lack of significant findings could be attributed to the short intervention duration and frequency. Future studies with extended training periods are recommended to better understand the potential impact of HICTBW on body composition in sedentary collegiate females. In conclusion, this study found that HICTBW are safely to be conducted to sedentary young collegiate females.

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