THE EFFECT OF A 12-WEEK HIGH-INTENSITY FUNCTIONAL TRAINING PROGRAM ON BODY COMPOSITION, PHYSICAL PERFORMANCE, AND BODY IMAGE PERCEPTIONS IN COLLEGE AGE ADULTS

Chair: Christopher Connolly

High-intensity functional training (HIFT) is a relatively new training modality with promising effects for body composition and physical performance such as strength and muscular endurance. However, very little research has investigated the effects of HIFT on body image.

Purpose: To determine the effect(s) of 12-weeks of HIFT on body image perceptions, body composition, and performance.

Methods: A sample of 28 members of a University HIFT program (n = 15 female, Mage = 22.3 ± 3.7 years) were recruited to participate in a 12-week observational study. Body image perceptions were assessed through quantitative questionnaires. Body composition was assessed via air plethysmography (Bod PodTM). Performance was assessed via 3-repetition-maximum (3RM) deadlift and push-press (strength), 2-minute push-up test (muscular endurance), a 60-second wind-resistance bike effort (anaerobic capacity), and a Balance Error Scoring System Test (balance assessment). Testing occurred at 0-, 6-, and 12-weeks. 1RM-ANOVA used for analysis of main effects.
Results: N = 17 Participants completed the study and attended 3.0 ± .92 classes per week. Strength performance significantly increased for the deadlift (p = .001) and push-press (p < .001). Muscular endurance performance test significantly increased (p = .03). A significant main effect of time was observed on balance performance (p = .04). Body composition measures showed significant increases in fat-free mass (p < .001) and percentage (p = .03), but no significant effects on fat mass or percentage. Regarding body image perceptions, a significant main effect of time was observed for increases in appearance evaluation (p = .006) and body areas satisfaction (p = .008) and decreases in overweight preoccupation (p < .001). Significant increases in body appreciation were also observed (p = .01). Post-hoc exploratory analyses showed no effect of gender or experience on body composition, performance, or body image perceptions, likely due to sample size.

Conclusion: Participation in 12 weeks of HIFT can improve measures of strength, muscular endurance, and alter body composition through increases in lean-mass. These findings support the current literature on HIFT effects. Critically, HIFT shows preliminary evidence for improving feelings of body attractiveness and decreasing overweight preoccupation among participants.