

The Effect of High Intensity Interval Training in Reducing the Risk of Cardiovascular Diseases in Obese Type-I Individuals

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Abstract

Background

This study aimed to investigate the potential of High-Intensity Interval Training (HIIT) as a non-pharmacological intervention to reduce the risk of cardiovascular disease in a specific population.

Methods

A quasi-experimental design was employed; involving 20 young adults aged 25-30 recruited from a fitness centre. The participants underwent an 8 weeks high-intensity exercise program consisting of 3 weekly sessions. Baseline measurements of body mass, height, BMI, cholesterol, triglycerides, LDL, and HDL levels were taken before the intervention. Post-intervention measurements were obtained at the end of the 8 weeks.

Results

The results demonstrated significant improvements in various parameters following the 8 weeks workout program. BMI decreased from 32.2 ± 1.42 to 31.67 ± 1.45 , while cholesterol levels decreased from 221.37 ± 9.3 to 201 ± 9.64 , indicating a reduction in total cholesterol. Triglyceride levels decreased from 181.5 ± 10.98 to 170.1 ± 11.93 . LDL values decreased from 144.5 ± 8.9 to 134.2 ± 8.13 , indicating a decrease in low-density lipoprotein. Additionally, HDL levels increased from 36.53 ± 4.53 to 46 ± 5.44 , reflecting an increase in high-density lipoprotein levels. All these changes were statistically significant ($p \leq 0.005$).

Conclusion

The findings suggest that HIIT is an efficient and effective exercise for sedentary and inactive young males. The study supports using HIIT as a non-pharmacological approach to improve physical well-being, enhance fitness, and reduce the risk of cardiovascular diseases. HIIT provides a time- and cost-efficient alternative for individuals with limited exercise time who still desire optimal health and fitness outcomes.

Keywords

Cardiovascular Diseases, High-Intensity Interval Training, Sedentary Lifestyle, Young Adults.