Abstract

The prevalence of childhood and adolescent obesity has increased steadily over the past three decades such that obesity is now a major worldwide pediatric health risk factor for adult morbidity and mortality. The number of children and adolescents who are at or above the gender-and age-specific value of body-mass index (BMI) for the 95th percentile has increased in the United States and worldwide. In this project an evidenced-based weight reduction, physical activity and exercise program was designed, implemented, and evaluated. Based on the synthesis of the evidence from six relevant research studies performed on prevention of pediatric obesity the project focused on the role and intervention of physical activity, structured exercise, and healthy diet, in maintaining healthy weight, BMI, and waist circumference, in students aged 17 through 20 comprising of males and females in a charter school in Pennsylvania. The interventions of structured physical exercise and healthy diet were implemented in the I-Lead Charter School of Reading with students with BMI greater than 25. There was 45 minutes of structured physical exercise two times a week, drinking of water, and healthy snacks of fruit and vegetables; as well as didactic nutrition education. The timeline was five months with 10 participants completing the project; there was overall reduction in weight, BMI, and waist circumference. There was overall 3% reduction in weight and BMI; and 6% overall reduction in waist circumference of the 10 participants.