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Health Promotion Intervention in Arab-Israeli Kindergarten Children.
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BACKGROUND : Obesity is the most common chronic pediatric disease in westernized societies, with minorities and children from low socioeconomic status being mostly affected. Arab-Israelis are the largest minority population in Israel.

OBJECTIVE :

The aim of this study is to examine the prevalence of obesity and to prospectively study the effects of a health promotion, school-based intervention on nutrition and physical activity knowledge and preferences, anthropometric measures, and fitness in Arab-Israeli kindergarten children.

PARTICIPANTS :

One hundred fifty-four children completed a school year with combined dietary-behavioral-physical activity intervention and were compared with 188 controls (age 4.2-6.5 years)

RESULTS :

The prevalence of overweight and obesity among Arab-Israeli kindergarten children was 28.9%. Compared with control, the intervention led to a significantly greater (control vs. intervention, respectively, $p < 0.05$) increase in nutrition knowledge (51.2 +/- 1.5%-48.9 +/- 1.6% vs. 48.9 +/- 1.6%-85.9 +/- 1.4%) and preferences (47.4 +/- 1.5%-47.7 +/- 1.6% vs. 45.2 +/- 1.8%-87.1 +/- 1.4%), increase in physical activity knowledge (47.2 +/- 1.3%-47.0 +/- 1.7% vs. 49.2 +/- 1.7%-90.8 +/- 1.3%) and preferences (52.3 +/- 1.3%-54.2 +/- 1.8% vs. 56.2 +/- 1.4%-92.8 +/- 1.0%), and improvement in fitness (-10.2 +/- 1.6 vs. 11.6 +/- 1.4 shuttle run laps). The intervention was associated with favorable changes in height gain (5.0 +/- 0.1 vs. 6.2 +/- 0.1cm), body mass index (BMI-0.41 +/- 0.06 vs. -0.71 +/- 0.06 kg/m²) and BMI percentile (-10.0 +/- 1.3% vs. -16.2 +/- 1.2%) in the control and intervention groups, respectively.

CONCLUSIONS :

A kindergarten dietary-physical activity intervention applied by the kindergarten teachers led to a decrease in BMI, BMI percentile, improved nutrition and physical activity knowledge and preferences, and improved fitness. Such programs may play important role in health promotion, prevention, and treatment of childhood obesity in minority communities from early age.