The “It’s All About Kid’s Program” is based on the Center for Disease Control’s Coordinated School Health Program Model. The school-based model includes eight focus areas including physical education, nutrition and healthy eating, community health services, child development services, health education, parent/community involvement, health promotion for school personnel, and ancillary services such as dental education and outreach.

One of the Program’s objectives is to reduce the prevalence of childhood obesity for first through fifth grade students. The local health department implemented a health and nutrition program including a pre- and post-participation analysis. The schools selected for this study were classified by the State Department of Education as low performing schools with poor attendance rates, limited access to healthcare, and no physical education instructor. More than 50% of the 663 elementary students from the selected schools had an initial body mass index (BMI) classified as overweight or at-risk for overweight.

METHODS

Pre- and post-participation BMI records on 539 participants were available for analysis. Two hundred sixty two individuals (48.6%) had a normal BMI at the outset; of these, 90.5% demonstrated no change in BMI status over the course of the program. Ninety-eight students (18.2%) had fall BMI scores classified as “at-risk,” with 30.6% improving to normal BMI in the spring, and 21.4% falling into the overweight category. One-hundred and seventy-nine students (33.2%) had fall BMI scores classified as overweight; the overwhelming majority (86.6%) remained overweight, while 13.4% had improved BMI classification at the post-participation assessment.

RESULTS

An 2X5X2 Mixed Model ANOVA was computed with fall to spring BMI score changes compared across grade and gender (between subject effects). Results of the ANOVA demonstrated a significant interaction \([F (4,526) = 3.30; p < .05]\) across the three variables. Bonferroni pair wise comparisons were computed to further clarify the nature of the interaction.

For each grade there was a significant decrease between Fall 2007 and Fall 2008 BMI scores. These differences held for both males and females with the exception of first grade males.

DISCUSSION

The purpose of the current study was to examine the effects of a school based program on the BMI of elementary school children. These findings suggest that changes in BMI were a function of both grade and gender. The greatest BMI differences were observed in younger children (e.g., first and second grade). It is argued that earlier intervention among overweight or obese children may be necessary to impact the adverse health consequences associated with obesity (e.g., hypertension, diabetes, and cardiovascular disease).