

One-year change in energy and macronutrient intakes and, influence of body dissatisfaction in overweight and obese inner-city African American children: Results from community-based taking action together type 2 diabetes prevention programs

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Abstract

Taking Action Together (TAT) was a controlled community-based intervention protocol developed to reduce risk of T2DM among low-income, high BMI, 9-10 year old African American children. A secondary hypothesis of this study was that there would be greater improvements in the treatment group in dietary intakes and physical activity. To evaluate the objectives, multiple linear regression models were employed, with 1 year change in dietary variables as dependent variables. Intervention group status was the independent variable of interest and BMI_z was included as a covariate in all analyses. The analysis suggest that 1 year change in dietary intakes in boys was associated with group intervention status, with boys in the treatment group reducing their intakes of energy and fat to a significantly greater extent than boys in the control group. Differences in energy intakes were not significant, however, for girls.

Also, after adjusting for baseline intake of dietary variables and intervention group status, baseline body dissatisfaction was associated with 1-year increases in intake of energy, and all macronutrients in girls, but not in boys. These relationships were not substantially altered after adjusting for baseline BMI_z and global self-worth (GSW). This analysis suggests that, in girls but not necessarily in boys, body dissatisfaction might need to be targeted during interventions that aim to improve nutrient intake.

Based on the differences in gender response to our intervention, we conclude that interventions designed for and delivered only to African American girls might be more successful than those delivered in mixed gender settings.

Biography

Sushma Sharma is a Senior Scientist at the University of California, Berkeley. Her post-doctoral research experience includes conducting, managing and supervising research in the areas of nutrition, obesity, type-2 diabetes and metabolic health. Her current interests are in nutrition and metabolic health, with a special focus on obesity and type-2 diabetes prevention programs.

Sharma has published more than twenty articles in peer-reviewed journals; and has contributed to book chapters and magazine articles. She is an invitee reviewer for more than ten international journals, and holds memberships in several international scientific organizations. She is an associate editor of two prestigious journals in Pediatrics and Nutrition research.