

## **Obesity Prevention in Low-income African American and Latino Children: Health Benefits of a Family-based Program to Prevent Aggression**

Dawson-McClure, S., Brotman, L.M, Rosenfelt, A., Theise, R., & Gouley, K.K. Obesity Prevention in Low-income African American and Latino Children: Health Benefits of a Family-based Program to Prevent Aggression. Society for Prevention Research, May 2007.

In the US, 18% of children and adolescents are overweight and an additional 18% are at risk for overweight. Rates of overweight are elevated for African American and Latino children and this health disparity is evident as early as age 6. A recent meta-analysis identified only three obesity prevention programs for preschoolers, and only one of these programs yielded short-term effects for child overweight. This school-based program shows promise, but lack of family involvement and changes to the home environment may limit maintenance of effects.

A small literature documents a link between child overweight and conduct problems. Shared risk factors are thought to partially explain the association (e.g., poverty, lack of neighborhood safety, harsh parenting) and child overweight and conduct problems may also be reciprocally related through mechanisms such as peer rejection and teasing. This theoretical and empirical work suggests that family-based programs that promote effective parenting and prevent aggression may also yield benefits for child overweight. We have previously demonstrated effects of a family-based prevention program on harsh parenting and child aggression during the preschool period. The present study examines whether the program yields additional benefits for child overweight in preadolescence.

**Prevention program.** Building Blocks is a preventive intervention for preschool-aged siblings of adjudicated youth (Brotman, Klein & Gouley; NIMH R01 1997 – 2007). The intervention included 22 weekly groups for parents and preschoolers based on the Incredible Years Series; additional intervention components included weekly guided parent-child interaction at the end of each group, 10 bi-weekly home visits, boosters (5 groups and 3 home or school visits), and referral and linkage as needed.

**Participants.** Families were screened through family court records and were randomly assigned to intervention and control conditions. Participants were 92 families of preschoolers (mean age 3.94 at baseline). 61% were African American, 24% Latino, 15% mixed/other ethnicity. 60% of families had yearly incomes below \$15,000 and 43% of caregivers did not have a high school diploma. Seventy-one percent of the sample was retained for assessments during preadolescence, and 71% of those youth came into the lab for a physical exam (mean age 10.47).

**Rates of overweight.** Based on objective measures of height and weight in preadolescence, 54% of children were overweight or at risk of overweight (> 85<sup>th</sup> percentile for BMI, standardized by age and sex). There were no gender differences in the rate of overweight (52% females, 57% males).

**Program effect on overweight.** Program effects were examined separately for males and females. There was a significant program effect for females, with 75% of those in the control group overweight relative to 23% of those in the intervention condition. There was not a significant difference for males.

**Conclusions.** This sample of low-income African American and Latino children at familial risk of conduct disorder evidenced elevated rates of overweight in preadolescence (54% relative to 43% of New York City public school children). A family-based program delivered during the preschool period appears to reduce the rate of overweight for preadolescent girls, an average of five years post-intervention. Future work will consider whether intervention-induced changes in parenting and child aggression mediate the effect on overweight, as well as explore the role of concurrent explanatory factors such as pubertal development.

**Implications.** This initial finding suggests that a general family-based program designed to promote effective parenting practices and prevent child aggression also yields preventive effects for child overweight. A comprehensive approach that incorporates health promotion content into an empirically-supported parenting program may provide even greater health benefits.