Obesity Prevention Needed in Preschool Years

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RENO, NEV. — Efforts to prevent childhood obesity should start before children enter school, Leann Birch, Ph.D., said at the annual meeting of the American College of Nutrition.

"If we wait until kids start school, we miss our best chance to prevent obesity," said Dr. Birch, director of the Center for Childhood Obesity Research at the Pennsylvania State University, University Park.

A recent review of a number of obesity interventions conducted in school settings showed that only about half produced any type of change in eating behaviors, physical activity, or body mass index, and that the effect sizes were too small to keep up with projected and current population increases in childhood obesity. In addition, the largest and most rigorous studies were not successful.

"It suggests that we really need some other kinds of approaches," Dr. Birch said.

The school setting is a logical place to conduct an obesity intervention, Dr. Birch said, because that's where the children are and there's an opportunity to teach them about nutrition and physical activity. However, the successful implementation of a program can be challenging because schools have other priorities and institutional change there is often difficult.

Current figures show that by the time children start school, about 20% are already overweight, and that number is even higher among high-risk groups, Dr. Birch said. By the time children are 5 years old, they have already learned an enormous amount about food and eating. They've eaten more than 10,000 meals and snacks, watched thousands of hours of television, and have seen thousands of food commercials, she said.

There are a number of environmental influences that contribute to childhood obesity, but parents can have a substantial effect on their young children, Dr. Birch said. The literature on the risk factors for childhood obesity indicates that parental choices play a significant role. For example, risk factors for childhood obesity include formula feeding; the early introduction of solid foods; too much time spent watching television; and parental overweight and activity levels.

One promising area for intervention is increasing the exclusive practice of breast-feeding, Dr. Birch said. Her own research suggests that breast-feeding could help to improve a child's acceptance of foods later on. In an experiment that looked at the effects of repeated exposures to food, Dr. Birch and her colleagues found that infants were more accepting of food after repeated exposures and that breast-fed infants were more accepting than were formula-fed infants (Pediatrics 1994;93:271-7).

It's possible that the early exposure to flavors in the mother's breast milk helps infants in accepting new flavors in their diets as they move on to solid foods, she said.

Parental perceptions about weight are another area in which work is needed, she said. Studies in general have shown that about one-third of obese children (those above the 95th percentile for their age and gender) are classified as normal weight by their parents. This misclassification is more common among less-educated and low-income mothers. "These kinds of perceptions are real barriers to pediatricians' broaching the topic and having a meaningful discussion with parents," Dr. Birch said.

New approaches are needed to help parents understand that the provision of too much food and childhood overweight are threats to a child's healthy development, she said. In a study designed to see how much children would eat when given double the age-appropriate portion size, Dr. Birch and her colleagues found that children ate about 25% more when they were given larger portions compared with age-appropriate amounts (Am. J. Clin. Nutr. 2003;77:1164-70).

But food restriction won't work to curb this problem, Dr. Birch said, because it makes the food even more attractive to children. Research shows that mothers who used restrictive feeding practices had daughters who ate more in the absence of hunger (Am. J. Clin. Nutr. 2003;78:215-20).

Instead, Dr. Birch suggests parents start early and give children a chance to try healthy foods repeatedly. Healthy food should also be presented in a positive context and children shouldn't be coerced into eating those foods. Parents can also serve as models in their own eating and activity choices, she said. ■