



EMBARGOED UNTIL

April 24, 10:30 am PT

ONSITE NEWSROOM

San Diego Convention Center

April 21-25, 2012

Phone: 619-525-6213

Media@faseb.org

Suzanne Price: sprice@nutrition.org

SCHOOL CLIMATE CAN AFFECT OVERWEIGHT CHILDREN FOR LIFE

San Diego, CA —Kids can be really mean – especially to other kids – and school-yard bullying can have serious immediate and long-term effects. One area of increasing concern in this regard is the possibility that overweight or obese children shoulder the brunt of bullying. With childhood obesity rates reaching unprecedented levels, this may translate into even more negative behavior being experienced by today's kids. It is also possible that children who are disliked by their peers may respond by becoming less active and more likely to overeat – compounding the issue even further. It's a vicious cycle, to say the least. Indeed, some research shows that obese children miss more school days than healthy-weight children. One reason might be because obese kids are unhappy due to being mistreated by other children; they might be avoiding school because of a negative emotional climate in the classroom.

To help address this important question and understand better the factors related to childhood obesity, researchers at Oklahoma State University and the University of Arkansas studied 1139 first-graders in 29 rural schools where obesity risk is especially high. Specifically, they tested their hypothesis that obese and overweight children are more disliked than their classmates. This study was important because, although there is evidence that obesity carries with it a stigma, this has been studied primarily by using hypothetical questions. And it has almost never been tested by directly asking children how much they liked each of their classmates, and certainly not among children as young as six years old.

Each child was weighed and measured so that body mass index score (BMI) could be calculated; this information was used to classify each child as having healthy weight or being overweight or obese. Children were then shown photos of their classmates and asked how much (on a 1-to-3 scale) they liked to play with each child, and the researchers calculated a score for each child representing the average of their classmates' ratings. A similar procedure was used to determine how the teachers perceived each child's acceptance by the other kids in his or her classroom.

According to both the children's and teachers' reports, both overweight and obese children were significantly more disliked than healthy-weight children. The researchers concluded that, "It is important to remember that these children are only in first grade! So children with weight problems are experiencing a negative social environment very early in their educational experience. This is significant because other research shows that children who are rejected or unhappy in school have trouble learning."

"It also suggests one reason some children's weight problems increase with age: if overweight children are disliked at school, they may be less likely to play actively on the playground, during physical activity classes, and after school. They may also be more likely to engage in emotional eating as a way to cope with feeling bad at school."

These findings suggest that obesity prevention programs should start very early and should involve peers, not just the overweight children themselves. In this case, *it may take a classroom*.

Results from this study will be presented orally on April 24, 2012, in Room 32A at the Experimental Biology 2012 meeting in San Diego, CA.

Amanda Harrist (Oklahoma State University), Lixian Cui (Oklahoma State University), Taren Swindle (University of Arkansas), Melanie Page (Oklahoma State University), Laura Hubbs-Tait (Oklahoma State University), and Glade Topham (Oklahoma State University) were coauthors on this paper.

This study was funded by the United States Department of Agriculture.

About Experimental Biology 2012

Experimental Biology's mission is to share the newest scientific concepts and research findings shaping future and current clinical advances – and to give scientists and clinicians an unparalleled opportunity to hear from colleagues working on similar biomedical problems using different disciplines. With six sponsoring societies and another 20 U.S. and international guest societies, the annual meeting brings together scientists from throughout the United States and the world, representing dozens of scientific areas, from laboratory to translational to clinical research. The meeting also offers a wide spectrum of professional development sessions.

About the American Society for Nutrition

The American Society for Nutrition (ASN) is the preeminent professional organization for nutrition research scientists and clinicians around the world. ASN is dedicated to bringing together the top nutrition researchers, medical practitioners, policy makers and industry leaders to advance our knowledge and application of nutrition. Founded in 1928, ASN publishes *The American Journal of Clinical Nutrition* (AJCN), *The Journal of Nutrition* (JN), and *Advances in Nutrition* and provides a wide range of education and professional development opportunities to advance nutrition research, practice, and education. Visit ASN online at www.nutrition.org.