

Behavior Problems Linked to Weight Gain

Study Suggests Untreated Mental Health Problems Cause Obesity in Kids

By Salynn Boyles WebMD Medical News Reviewed By Charlotte Grayson, MD on Tuesday, November 04, 2003

Nov. 4, 2003 - Several studies have showed that overweight kids are more likely to have behavioral problems. Now, intriguing new research suggests the bad behavior may be causing the weight gain, and not the other way around.

The study showed an increased risk for obesity in children with behavioral problems. The development of such problems in normal-weight kids was associated with a fivefold increased risk for becoming overweight within two years, says lead author Julie C. Lumeng, MD.

"We found that kids are much more likely to become overweight if they have behavioral problems," she tells WebMD. "We can't say for sure that being overweight doesn't cause behavioral problems. That may also be true. But what this study really demonstrated was that the reverse is definitely true."

Weighty Problems

Lumeng says she first noticed the association between behavioral problems and weight gain while working at an inner-city health clinic. She says parents often brought their children in to discuss sudden behavioral problems such as dropping grades or acting out at home.

"I noticed that when I saw the children again a few months later, they had often gained an enormous amount of weight," she says. "It really made me think that a possible contributor to the obesity epidemic could be untreated mental health problems that show up as behavior problems."

To test this theory, Lumeng and colleagues from Boston University School of Medicine analyzed data from a large-scale, national survey of children. Their sample included 755 children between the ages of 8 and 11 whose parents answered questionnaires about their weight and behavior. Risk factors associated with childhood obesity were also assessed.

After adjusting for such risk factors, the researchers concluded that behavioral problems were associated with a threefold increase in risk of becoming overweight. This increase was similar to other well-recognized risk factors, including living in poverty and having a mother who was obese.

The findings are published in the November issue of the journal *Pediatrics*.

The type of behavior problems exhibited did not appear to be a factor in whether the

children gained weight. Lumeng says kids who showed aggression or otherwise acted out were just as likely to become overweight as kids who became withdrawn and showed other signs of depression.

Depression and Obesity

Although the study could not address why the development of behavioral problems may cause weight gain, Lumeng says it is clear that behavioral issues are often linked to depression.

"Kids who are depressed may be more likely to overeat and to sit around watching TV," she says. "It is not hard to imagine that a child with untreated depression would be much more likely to become overweight over a period of a couple of years."

Child psychologist Daniel Armstrong, PhD, says it is possible that behavioral issues may cause weight gain, but it is just as likely that being overweight causes behavioral problems. Armstrong, professor of pediatrics at the University of Miami School of Medicine, says animal studies have suggested a link between depression and obesity, and ongoing research is exploring whether similar neurochemical pathways in the brain drive both disorders.

"We are not at the point where we are able to say with authority whether depression causes obesity or whether obesity causes depression," he tells WebMD. "And at the end of the day it is not inconceivable that we will find multiple relationships."

SOURCES: Pediatrics, November 2003; vol 112: pp 1138-1145. Julie C. Lumeng, MD, Center for Human Growth and Development, University of Michigan, Ann Arbor. Daniel Armstrong, PhD, professor of pediatrics, University of Miami School of Medicine; director, Mailman Center for Child Development, University of Miami School of Medicine. ----- © 2003 WebMD Inc. All rights reserved.