# Adolescents' Eating Disorders Can Shift Over Time

#### BY SUSAN LONDON Contributing Writer

SEATTLE — Sizable proportions of adolescents progress along a spectrum of eating-disordered behavior over time, highlighting the importance of early detection and intervention, Diann M. Ackard, Ph.D., said at an international conference sponsored by the Academy for Eating Disorders.

"The percentage of disordered eating behaviors in epidemiological samples of youth has been actually pretty varied," said Dr. Ackard, a psychologist in private practice in Golden Valley, Minn., explaining part of the study's rationale. In addition, she noted, data also suggest that some young people who report eating disorder symptoms worsen over time, developing partial- or full-syndrome disorders.

Dr. Ackard and her colleagues assessed the stability of eating disorder classifications among a population-based sample of adolescents in Project EAT (Eating Among Teens). In the project, the same adolescents completed surveys about eating behaviors and body image in 1999 and again in 2004, and the survey items were mapped onto DSM-IV criteria.

Analyses were based on 2,516 adolescents in middle school or high school at the first assessment, Dr. Ackard reported at the conference, which was cosponsored by the University of New Mexico. Those in middle school were a mean age of 12.8 years and those in high school were a mean age of 15.8 years in 1999. Fifty-five percent were female.

At the first assessment, 10% of adolescents met full-threshold criteria for an eating disorder (anorexia nervosa, bulimia nervosa, or binge eating), 39% had some subthreshold symptoms (com-

pensatory behaviors or body image disturbance), and 50% were asymptomatic.

Five years later, considerable flux in the eating disorder groups was evident, Dr. Ackard reported. Among female adolescents who were asymptomatic at the first assessment, 63% remained so at follow-up—but 36% had developed symptoms and 1% had developed full clinical disorders. About 61% of those who initially had some symptoms still had them; another 37% had improved, becoming asymptomatic, but 3% had worsened and developed clinical disorders.

Only 10% of female adolescents who initially had clinical disorders still had them; fully 70% had a reduction in severity to some symptoms and 20% were now symptom free. "We are not sure as to whether that was a treatment-seeking sample or if they naturally remitted," Dr. Ackard noted of the last group, because the survey did not ask about treatment.

Among

adolescents

were asymptomatic

at the first assess-

ment, 74.5% re-

mained so at the

second assessment,

but 25% had devel-

oped some symp-

toms and 0.4% had

male

who

Five years after first assessment, considerable flux in the eating disorder groups was evident.

DR. ACKARD

developed clinical disorders. And 38.8% of those who initially had some symptoms still had them; an additional 59.9% no longer had any symptoms, but 1.4% had progressed to a clinical disorder. Finally, all of the male adolescents who initially had a clinical disorder had improved to the point of having only some symptoms.

The study's good news, Dr. Ackard said, is that after 5 years, most asymptomatic youth (68.9% overall) remained symptom free, most with subclinical symptoms (52.4%) did not worsen to full clinical eating disorders and in fact 45.2% became asymptomatic.

In addition, most with clinical eating disorders improved to having only some subclinical symptoms (74%) or no symptoms (18%), said Dr. Ackard, also of the University of Minnesota, Minneapolis, and a research scientist at the Eating Disorders Institute at Park Nicollet Methodist Hospital, St. Louis Park, Minn.

On the flip side, some asymptomatic adolescents worsened to the point of having subclinical symptoms (30%) or clinical disorders (1%), others with symptoms progress to clinical disorders (2%), and a considerable proportion with clinical disorders still had them 5 years later (9%).

"I think for me what this means is early detection of eating disorder symptoms before meeting full-threshold eating disorder criteria is important for early intervention," Dr. Ackard said, noting that she favors insurance coverage of treatment for youth who do not yet meet full criteria.

In addition, she said, early treatment intervention might keep some young people from progressing to symptoms of greater severity.

"I am a vast proponent of broad, intensive prevention and treatment interventions particularly among youth, and even among youth who are younger than this particular sample we surveyed in this study, because I think everybody in the room is very aware that we see early signs of eating disorders even among 5-, 6-, 7-, and 8-year-olds," Dr. Ackard said.

She reported that she had no conflicts of interest in association with the study.

## Combination of Sleep and Weight Problems May Lower Quality of Life

#### BY HEIDI SPLETE Senior Writer

BALTIMORE — Both increased weight and sleep problems were associated with children's reports of poor quality of life, based on results from a study of 100 children aged 8-12 years.

Previous studies have linked poor quality of life to overweight and to sleep problems in children but this study is one of the few to investigate the joint contribution of weight and sleep to quality of life, said Kelly Ann Davis, who presented the results in a poster at the annual meeting of the Associated Professional Sleep Societies.

Ms. Davis and her colleagues used several types of statistical analysis to determine whether there were significant differences in sleep patterns for children in three different weight categories as defined by the Centers for Disease Control and Prevention—healthy, overweight, or obese.

Parents and children completed the Children's Sleep Habits Questionnaire, the Pediatric Sleep Questionnaire, and the Pediatric Quality of Life 4.0. Each child's height and weight was measured by a health care professional.

"I also ran a logistic regression analysis to determine how much variance in children's quality of life scores [reported by both parents and children] was predicted by weight and sleep problems," Ms. Davis, a research technician at the Children's Hospital of Philadelphia, said in an interview.

Sleep and weight each contributed to poor quality of life scores reported by the children.

Both sleep and weight were significant predictors of poor scores on the child-reported measures of psychosocial function and total quality of life, accounting for 48% and 33% of the variance, respectively. In addition, weight, but not sleep, was a significant predictor of low scores on child-reported physical function tests, accounting for 23% of the variance.

In a breakdown of the children's sleep patterns, obese children had significantly more symptoms of sleep-disordered breathing, compared with both overweight and healthy weight children, and both obese and overweight children had significantly more symptoms of excessive daytime sleepiness, compared with healthy weight children. In addition, overweight children had significantly longer sleep duration and significantly longer sleep onset latency, compared with healthy weight children.

Sleep was not a significant predictor of low scores on parent-reported measures of the child's quality of life.

Increased weight was the only significant predictor of low scores, and it accounted for 11% of the variance in physical function scores and 12% of the variance in both psychological function scores and total quality of life scores.

"It is important for health care professionals to be aware of the association between weight and sleep and ask parents of overweight children about their child's sleep," Ms. Davis wrote. The results support findings from previous studies that show a high prevalence of sleep problems among obese children.

Ms. Davis had no financial conflicts to disclose.

### Metformin Decreases Food Intake, Perceived Hunger

#### BY MICHELE G. SULLIVAN Mid-Atlantic Bureau

SAN FRANCISCO — Metformin appears to exert its weightloss effects in obese children by reducing their desire to eat and thus decreasing their food intake.

A substudy of a governmentsponsored placebo-controlled trial found that children taking metformin not only ate less, they reported higher satiety and lower hunger than those taking placebo, Rachael Sorg said in a poster session at the annual meeting of the Endocrine Society.

The 6-month study, sponsored by the National Institutes of Health, randomized 100 obese children with severe hyperinsulinemia (mean age 10 years) to either 1,000 mg metformin twice a day or to placebo. Some of the children (45 metformin-treated and 39 placebo-treated) participated in pre- and posttreatment meal studies to evaluate the drug's effect on food intake. One study was conducted before the drug trial commenced and one at the end of the 6-month treatment period.

Each meal study included two buffet lunches, each containing 28 items (9,835 calories total). The first lunch was consumed after children fasted through the night. The second was consumed after they drank a 790-calorie nutrient shake for breakfast.

Subjects completed a scale of hunger, fullness, and desire to eat before after each test meal, and also kept a food diary of everything they consumed for 7 days before and after the test.

Compared with baseline measurements obtained in the pre-metformin meal study, children taking metformin consumed significantly fewer calories in the meal after the breakfast shake and reported significantly decreased feelings of hunger and increased feelings of fullness. They reported lower hunger after the postshake meal, lower desire to eat the postshake meal, and lower caloric intake at the postfast meal as well, although none of these differences were significant.

"These data suggest that one of the mechanisms whereby metformin treatment reduces body weight in overweight, hyperinsulinemic children is by decreasing food intake and perceived hunger," said Ms. Sorg, a research assistant at the National Institutes of Child Health and Human Development.

