

Association of Body Mass Index and Prescription Drug Use in Children from the Medical Expenditures Panel Survey, 2003-2006

Yvonne S. Lin

Objective: To investigate whether overweight and obese children as defined by body mass index have higher odds of prescription drug use, as an aggregate and by specific drug classes, compared with normal weight children in a population-based retrospective cohort study.

Patients and Methods: We used information from the Medical Expenditure Panel Survey, a nationally representative household survey for 2003 through 2006. We identified 11,079 children aged 6 to 17 years with BMI data. Children were classified as using a prescription drug if they had one or more purchases of a prescribed drug in an outpatient setting during the study year. We used multiple logistic regression procedures to estimate the relative risk (OR) of prescription drug use in overweight (85th to 94th percentile) and obese (\geq 95th percentile) children compared with normal weight (<85th percentile) children. We tested for effect modification by age and adjusted for age, sex, race/ethnicity, family income level, region of residence and insurance status.

Results: Among those aged 6 to 17 years, overweight and obese children accounted for 21% and 15% of children, respectively. Overall, 51.4% of overweight children and 54.3% of obese children were classified as having used prescription drugs compared to 49.7% of normal weight children ($p=0.019$). Obese children were more likely to be prescribed antidiabetic agents (adjusted OR 4.68 [95% confidence interval (CI), 1.92-11.4]), antidepressants (adjusted OR 2.03 [95% CI, 1.33-3.11]), antipsychotics (adjusted OR 2.02 [95% CI, 1.12-3.66]), hormones (adjusted OR 1.74 [95% CI, 1.28-2.36]), respiratory agents (adjusted OR 1.43 [95% CI, 1.21-1.69]), and anti-infectives (adjusted OR 1.26 [95% CI, 1.07-1.48]).

Conclusion: Children and adolescents who are obese are more likely than non-obese children and adolescents to use prescription drugs. Many of these drugs are used to treat obesity-related diseases. Appropriate weight management among children may offer a point of intervention to contain some prescription drug expenditures.

Committee:

Michelle Williams, ScD, MS (Chair)

Janice Bell, PhD, MN, MPH

Jane Rees, PhD, RD

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