

## **Parent-rated behavior problems associated with overweight before and after controlling for sleep disordered breathing.**

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**BACKGROUND:** Researchers and clinicians are seeking to develop efficacious behavioral interventions to treat overweight children; however, few studies have documented the behavioral correlates of overweight children in community samples. The goal of this study was to determine the nature and prevalence of behavior problems for overweight school-aged children versus normal weight peers before and after controlling for the effect of sleep disordered breathing. **METHODS:** Hispanic and Caucasian children were invited to participate in a study of sleep through public elementary school classrooms. Anthropometric evaluation and behavioral ratings were collected for 402 children aged 6-11 years. Overweight was calculated using the Centers for Disease Control age- and gender-specific guidelines. Children were classified as overweight if they were at or above the 95th percentile for their age and gender group. Behavior problems were measured using the Conners' Parent Rating Scales-Revised and the Child Behavior Checklist. Sleep disordered breathing was assessed using in-home overnight polysomnography. **RESULTS:** Approximately 15% (59/402) of the sample was classified as overweight. Simple odds ratios indicated that overweight children were more likely to have clinically relevant levels of internalizing symptoms (OR 2.23, CI 1.05-4.72), psychosomatic complaints (OR 2.15, CI 1.02-4.54), withdrawal (OR 4.69, CI 2.05-10.73), and social problems (3.18, 1.53-6.60). When odds ratios were adjusted for level of sleep disordered breathing, withdrawal (OR 3.83 CI 1.59-9.22) and social problems (OR 2.49 CI 1.14-5.44) remained significantly higher for overweight subjects. **CONCLUSION:** After controlling for the effect of sleep disordered breathing, behaviors such as withdrawal and social problems, are common in overweight children and need to be taken into account in the design of interventions and services as they may act to moderate the efficacy of behavioral treatments.

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