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Risk factors for sleep-disordered breathing in children. Associations with obesity, race, and respiratory problems.

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This study examined risk factors for sleep-disordered breathing (SDB) in children and adolescents; specifically, quantifying risk associated with obesity, race, and upper and lower respiratory problems. Subjects were participants in a genetic-epidemiologic study of SDB and included 399 children and adolescents 2 to 18 yr of age, recruited as members of families with a member (a proband) with known sleep apnea (31 index families) or as members of neighborhood control families (30 families). SDB was assessed with home overnight multichannel monitoring and SDB was defined based on an apneahypopnea index >= 10 (moderately affected) or < 5 (unaffected). SDB of moderate level was significantly associated with obesity (odds ratio, 4.59; 95% confidence interval [CI], 1.58 to 13.33) and African-American race (odds ratio, 3.49; 95% CI, 1.56 to 8.32) but not with sex or age. After adjusting for obesity, proband sampling, race and familial clustering, sinus problems and persistent wheeze each independently (of the other) predicted SDB. These data suggest the importance of upper and lower respiratory problems and obesity as risk factors for SDB in children and adolescents. Increased risk in African Americans appears to be independent of the effects of obesity or respiratory problems.

PMID: 10228121 [PubMed - indexed for MEDLINE]