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Title: Is parental smoking a risk factor for sleep-disordered breathing in children?

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Body: Passive exposure to cigarette smoking has been associated with snoring and obstructive sleep apnea syndrome (OSAS) in children and snoring-related sleep fragmentation. The purpose of this study was to examine if parental smoking is a potential risk factor for OSAS in children. Data was collected from 42 children who were evaluated with polysomnography. The presence and the severity of sleep-disordered breathing were quantified by the frequency of apnoeas and hypopnea per hour of sleep (AHI). The study group consisted of 42 children (2.5-14.5 years, 64.3% boys). 33.3% children had mild, 38.1% moderate and 28.6% severe OSAS, based on AHI. 26/42 parents were active smokers (61.9%). 18/42 (42.9%) children had a history of wheezing or bronchial asthma. No statistical importance was recorded between parental smoking and symptoms related to upper airways obstruction, as mouth breathing during sleep ($p=0.406$) and during the day ($p=0.546$), observed apneas ($p=0.77$), snoring every night ($p=0.19$), nose speech ($p=0.35$) and nasal congestion ($p=0.10$). Although children with parents who smoke present easier fatigue at home ($p=0.014$), there wasn't a correlation with learning difficulties ($p=0.29$), lack of concentration ($p=0.24$), sleep latency ($p=0.68$) or REM latency ($p=0.57$). Moreover, parental smoking didn't influence the appearance of bronchial asthma and wheezing ($p=0.53$), the use of bronchodilators ($p=0.75$) or inhaled corticosteroids ($p=0.527$). Exposure to cigarette smoke at home and the presence of asthma didn't increase the likelihood of habitual snoring or the severity of OSAS. Probably, this result is a dose-response effect between snoring children and the number of cigarettes consumed by their parents.