

## **PS1.109**

### **Is sleep deprivation in children related to weight gain? An evidenced-based review**

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**Background:** Sleep plays an important role in physical and mental health. However, contemporary everyday life has relegated sleep to a secondary position. Insufficient sleep is associated to a significant risk of diabetes, high blood pressure, heart and kidney disease, a decrease in the immune system and an imbalance of the hormones that control hunger, which may lead to obesity. These consequences are particularly important to children, to whom sleep is also necessary to a favorable cognitive development and growth. Furthermore, child obesity has exponentially expanded throughout the world and as general and family doctors we must act to prevent this epidemic. Consequently, it is imperative to study the sleep pattern of children, in order to prevent serious diseases.

**Aim:** To review the literature in order to infer an association between sleep deprivation and weight gain in children.

**Methods:** Literature review in Medline and Cochrane, through Pubmed and Medscape using the Mesh-Terms: 'Sleep Deprivation', 'Child' and 'Weight Gain' in January 2016. From the resulting eight studies of our research, five were selected based on the full reading of the abstract.

**Discussion:** The five selected articles are systematic reviews comprehending the analyses of studies between 1966-2010, including epidemiological studies (cross-sectional, case-control, prospective and longitudinal studies), laboratory evidence and other systematic reviews and meta-analyses. The evidence suggests that in pediatric populations short sleep duration is consistently related to concurrent and future obesity, in an independent association, that may weaken overtime.

However, more interventional/randomized trials are needed to obtain definitive causal relationship between the variables.

**Conclusion:** All studies agree that sleep deprivation has significant consequences not only on body weight gain but also on neurobehavioral performance, especially in children, suggesting that health care providers should have a crucial role in family education regarding the unhealthy effects of sleep deficiency.